

Original Correspondence.

STATISTICS OF THE IRON MANUFACTURE.

Sir,—The remarks in your Journal respecting the value which you were pleased to say attached to the paper I read before the Society of Arts, and which is published in their Journal of the 15th Dec. last, No. 108, "On the Growth and Expansion of our Foreign and Colonial Trade in Iron, and the Fiscal Obstructions to its Extension," and also the observations of the chairman who presided on that occasion (James Wilson, Esq., M.P.), and the other gentlemen who joined in the discussion which took place after the reading of the paper, turned my thoughts as to whether statistical information relating to the minerals and manufactures of iron in this and other countries, carefully collected and arranged, would not be of value to the ironmasters and others interested in the trade. My attention has likewise been directed to this subject from seeing a notice in the *Journal of the Society of Arts*, that Mr. John Wilson, F.R.S., will, on the 28th Feb., read a paper "On the Iron Industry of the United States." I, therefore, addressed a letter to the chairman of the ironmasters' meeting (Philip Williams, Esq.), asking him whether he considered a proposition would be entertained for my employment as a kind of general secretary to the trade, in the collection of statistical facts of the iron and coal trades of this and other countries. There was but little time for him to consider this, as my letter only reached him the day before the meeting at Wolverhampton: he, nevertheless, was good enough to take an opportunity of naming the nature of my proposition, but the general feeling, he said, seemed against it, unless by a union of England, Wales, and Scotland. Another influential ironmaster wrote to me on the subject, and said—"I do not know how far it may be practicable to get the duty you suggest applied to the whole of the iron trade of the United Kingdom; it would be a useful measure in this shape." The object of my proposition was for the whole of the trade, and not confined to the Staffordshire district; but I thought that the notice of such a proposition at meetings attended by representatives of all the iron districts would attract some attention, and become a matter of consideration.

From having been accustomed for many years to collect facts connected with the iron manufacture, I do not feel that, if the means be afforded me, I shall have any insurmountable difficulties in procuring and arranging the information, which may be useful in all the iron-making countries. It would be out of place here to enter upon details of a plan, before I know whether I shall be supported; but there is in such an enquiry much to interest the public generally, and I cannot but think that the changes which appear to me are likely to take place in certain districts will afford important matter for consideration—how far the falling off in some districts may be compensated in quantity and quality in others, as well as the increased importance of countries where ironstone has been discovered, and is now for the first time brought into use.

The display of our coals, iron ores, and iron manufactures at the Great Exhibition was considered very important, as showing the advantages we had over other countries in the possession of these cheap and valuable materials, as it had a tendency to draw the attention of foreign countries to the impolicy of their restrictive tariffs. The same expectation holds with regard to the Exhibition which is to take place in Paris. This shows that publicity is a general benefit, and in itself a reason why I may venture to request your assistance in bringing the matter before the country.

Liverpool, Jan. 16.

HARRY SCRIVENER.

INSPECTORS OF COAL MINES—THEIR QUALIFICATION, AND MODE OF INSPECTION.

BEING SUGGESTIONS TO THE RIGHT HON. THE HOME SECRETARY, TO ENABLE HIM TO FRAME HIS BILL FOR THE MORE EFFICIENT PREVENTION OF ACCIDENTS IN COAL MINES.

MY LORD,—After many months of cautious enquiry, two parliamentary committees have reported on the best mode of preventing the fearful casualties so often occurring in the coal mines of this country. Both committees have alike agreed on some most important and essential points, two of which deserve especial attention—viz., improved ventilation, and additional inspectors. I think I may truly say, that from the most intelligent practical engineer to the hard-toiling collier, who may possess only an ordinary capacity, this decision will be hailed everywhere as a step in the right direction. A bill is now in preparation, founded, no doubt, on the evidence of the said committees, and it is to be hoped that in its operation, when passed, it will be much more efficient than the present bill. Having had the honour of suggesting a few things publicly, through the medium of several public papers, to the officials of Her Majesty's Government previous to the passing of the present bill, and having been a strict observer of its operation since 1849, I may be pardoned in again offering a few additional suggestions to your lordship on the pending bill, with reference to inspectors, their qualifications, and mode of inspection, in the hope that should these suggestions be attended to, in future these awful accidents in mines will be lessened and prevented. Some one may ask, and very justly, who I am, and what are my credentials for offering suggestions on a subject so very intricate and perplexing, even to men of considerable attainments? My answer to such is short and plain. I have no wish, did not my duty to God and humanity demand it, to publish my views, which I know may be at variance with some whom I cannot but respect, and who, I grant, have had considerable experience; but I claim to be heard before censured, especially as I have had some years of practical experience in coal mines as a working collier, and when, after my suggestions have been carefully weighed by the intelligent miner, a discerning public, and the Government, to which your lordship has the honour to belong and hold so distinguished a position in, then, but not till then, let them be rejected, if they should be found to be opposed to any law of humanity and equity, or in any way to injure the poor miner, or even really to militate against the best interests of his employer, or in any way opposed to the rectitude and well-being of her Majesty's Government.

My first suggestion, then, is as regards the qualification of inspectors of coal mines. In my opinion, which I think can be sustained by facts, inspectors to be efficient, or workmen that need not be ashamed, should themselves be practically acquainted with mines and mining. I wish it to be distinctly understood that I am no enemy to education or scholastic attainments; my bias would be directly to the contrary, having been educated for five years of my early life continuously by a distinguished clergyman of the Church of England. I avow my belief that a knowledge of astronomy is good, a knowledge of geology is good, a knowledge of mathematics is good—all knowledge is good, and it is not good for the soul of man to be without knowledge; but what I affirm is, that scholastic attainments alone cannot qualify a man to be an efficient inspector of mines; neither is it essentially necessary that inspectors of coal mines should be distinguished in all those higher branches of education. I well know, by experience, that there are intricacies and dangers connected with mines and mining that need pointing out and rectifying in most mines, which none but a thoroughly practical man can either know or understand. Allow me to call attention to a fact in illustration of my argument as follows, and in doing so let me positively declare that against the individual concerned I have no personal ill-will.—A certain gentleman, whose scholastic attainments are unquestionable, who now holds an inspectorship, one day, some years before his appointment, was called by duty to look over a certain mine. This said gentleman, having descended the pit, proceeded from the bottom direct into the mine with a burning rope, where the miners were positively working with safety-lamps, in consequence of the very dangerous state of the mine. One of the miners accidentally saw this man and his burning torch approaching this dangerous place; alarmed, as well he might be, he ran in a naked state, along with another miner in a similar position, to meet him, and as soon as possible laid hold of him, and desired him at once to put out his blazing rope; at first he refused, but one of the miners said to the other, "Run for my clothes while I hold him, and then, when we have got away, he may proceed, if he will, to burn himself to death, but no further shall he go until we are away." At this moment, and seeing the earnestness of the men, he became alarmed, and put out the rope by putting his foot upon it. I name this fact merely to show that something more than educational endowments is necessary to be known by inspectors of mines. I ask, but who can answer me the question, what would have been the sad consequences in a few moments if the miner in question had not in time seen the burning rope? The great probability is that he, with many others working in the same part of the mine, would all have been lost. See, then, the great value and absolute necessity of an inspector who has anything to do with mines, as to their inspection, or direction, being themselves practically ac-

quainted with fire-damp and its awful consequences, as seen in the coal mines of this country.

I will now come to another important matter connected with the inspection of coal mines. Ought Government inspectors to previously warn colliery proprietors, or their agents, of the day and hour when they intend an inspection being made of the mines? Some parties, I imagine, will answer yes, in order that the engineer or steward may be in readiness to accompany the inspectors into and through the mine.

Are there not many grave objections to this mode of inspection? And would not the ends of justice be frustrated by previous warning? What answer would a factory inspector give to this warning question? Would he not, under such circumstances, expect to find the house (factory) swept and garnished, and ready for his inspection, by factory owners and overlookers? And, indeed, would not such a mode of inspection anywhere be a positive waste of public money, and a blot upon British ingenuity in the nineteenth century?

No doubt, Mr. Baker, factory inspector, of Leeds, and other inspectors of that class, could tell some curious tales of children under age having been found by them, on inspection, crammed into wool-bags and other secret places, by overlookers, &c., for the purpose of evading the penalties of the Factories Act. But if the warning system was in operation, then there would be an end to these things, the overlookers simply ordering the under-aged children to stop at home, as the factory was going to be inspected next day.

I know a colliery where notice or warning had been given that an inspection would be made of such a pit on such a day, and what was the result? Why, the whole of the previous night two men were at the furnace (the ventilating agency), instead of one, heaping up coals upon it, for the purpose of having the mine in the best possible state of ventilation; indeed, one of the men remarked it was so awfully hot that it singed the hair of his head, at some distance from the fire. I ask, would the anemometer (an instrument to attest the quantity of air passing through the mine per minute), on the morning of the said day when the inspection was made, tell a true tale as to the real state of the mine in question, and as to the average quantity of air employed to ventilate it? If not, is there any credit to any colliery proprietor, or their agents, to have recourse to such deception? The absurdity of such a mode of inspection is too apparent to need any further comment.

If, then, my lord, we are to have an efficient inspection of mines, so as to lessen and prevent these sad calamities in the coal mines of this country, it will be seen at once by your lordship, and every practical observant mind, that—First, we must have to inspect our mines thoroughly practical men. And, secondly, the inspection must be made on the principle of factory inspection—viz., no previous warning.

My lord, should the above suggestions be carried out into practical operation, I doubt not but we shall soon have a great diminution of those fearful catastrophes which of late years have been of such frequent occurrence in the coal mines of England and Wales, and such results will not only be a great pecuniary advantage to all colliery proprietors, but also an undying honour to the Government that effected its consummation.

Jan. 17.

THOMAS STEPHENSON.

ANOMALIES OF THE SMOKE NUISANCE DISCUSSION.

Sir,—On Wednesday evening I attended a very full meeting of the Society of Arts, in the Adelphi (Mr. W. Fairbairn, C.E., of Manchester, president), to hear Mr. G. W. Muir, of Glasgow, on "The Smoke Nuisance, Morally, Historically, and Scientifically considered." The general impression must have been that it was an able, popular, and even entertaining paper, on a very dry subject. Morally, Mr. Muir proved that the smoke-making manufacturers were not criminals, to be arraigned at the same bar with the ordinary criminals of a police court; and further, that if a law must needs be provided to punish them, the same law should point out the means to consume or prevent the smoke. Historically, he enumerated furnace plans of forty years' standing, and some of recent invention, which had been re-invented, and produced as novelties. His historical facts, in reference to smoke-burning furnaces, went to show we could now do no more than was done twenty years ago, at which time plans then in use made no more smoke than "an ordinary kitchen chimney, and saved 20 per cent. in fuel;" which, he believed, was the utmost any patentee at the present day would promise.

Scientifically, he promised to avoid all chemical parade, to make no distinction between gas and smoke—for it was sufficient that "smoke was gas, and soot, and steam, and dust," and that it was that the public wished to get rid of. He cast a direct sneer on all Mr. C. W. Williams's opinions and efforts. Mr. Williams had not been the first to use the term "prevention" of smoke; he had endeavoured to prove, with a "great parade of chemistry," that smoke could not be burnt (Mr. Muir emphatically begged to say it could); and from one of Mr. Williams's own authorities, no less a person than Mr. Houldsworth, in his evidence on the Smoke Nuisance, it appeared that the air, whether admitted in a body or in small streams, was equally effective. Then Mr. Muir totally did away with all Mr. Williams's diffusion apparatus, by asserting that the grate bars themselves effected all that was necessary; or, if requisite, the fuel might, instead, be burnt on a perforated iron plate. He then, by diagrams, showed how smoke was made in the furnace; how, as the back fuel became incandescent, and provided there was a split bridge to admit air, the smoke was burnt. By a third diagram, he represented what he was pleased to call Mr. Williams's plan with perforations: but the crowning method was the fourth, in which all the incandescent coke was raked to the front, and all the fresh coal thrown on to two-thirds of the grate backwards to the bridge. He had seen forty shovels of coal thus thrown in, all the coked fuel being in front, and thus it would burn onwards, in its course to the bridge. He acknowledged, however, that the silk-mills, where he saw this method in operation, had an ample supply of boilers.

He wound up by a smart satire on the way in which town councils had been (so to say) wheedled into the belief that smoke could be burnt, chiefly by some inventor, until a succession of inventions got these gentlemen into a difficulty to say which was the plan. He, therefore, denounced all legal measures that did not point out the remedy, attention to which would prevent the evil.

Such was the tone and character of Mr. Muir's paper; and, really, what does it all come to? Here is a shrewd, clever Scotch merchant, who has by the inspection of furnaces, acting as the agent for patentees of furnaces, and by reading, and that kind of ability in catching at leading points which makes a good pleader at the bar, studied the case with some care, caught its prominent features, but produces what, for all practical purposes, is of no more value than such forced effusions generally prove.

Mr. Muir, by attempting too much, has done as good as nothing. His opinion of the subject, in a moral point of view, led him into considerations which may be good in Scotch law, but the case is very different on this side the border. His view, historically, was lame and impotent in the extreme; but his view of the smoke nuisance, scientifically considered, was a complete farce. In fact, he put in a disclaimer to the only part of any value to the practical man.

I have chosen this opportunity to mark the anomalies pertaining to discussions generally on the smoke nuisance. If each individual discusses it his own way, one in reference to his patent, another as applying to his furnace, and so on, then little confusion occurs. But when all these parties meet, one claims a hearing for hot air, another has a shower of water, a third says he burns all the smoke, a fourth declares smoke cannot be burnt, and if the public step in, they declare for having no smoke, whether got rid of by any or all these means, so the nuisance it but abated.

Mr. Muir's paper is an admirable example of this very anomaly I cannot but censure. Confused by the mass of his materials, his morals, his law, his history, and his science, he exclaims in despair, "It is not inventions we want, but dimensions." Now, the error which is the cause of all this misconception, lies in sometimes mingling, as Mr. Muir has done, the scientific consideration along with the politic consideration of this matter, or in attempting to discuss it scientifically on an erroneous basis. The policy of the public is to get rid of smoke at all hazards. But it is the policy of the manufacturer not to incur expense.

Take it as regards the public only, then the smoke nuisance might be removed within three months, because there is some plan for every furnace; and there are some furnaces everywhere at work to be seen making little or no smoke. Fine heavily and continuously, and to a certainty the nuisance will be abated as regards all close furnaces. Take it as regards the manufacturer only, then we have only to consult such advisers as Mr. Muir, who points out to us the wording of the clause in the Derby Act, the Glasgow Act, our Municipal Act, proving you cannot, or ought not to be fined in a liberal country like this, without a learned commission to appeal to, stating that the smoke of your factory chimney having proved a nuisance to your neighbourhood, you apply to know what plan you are

to adopt to meet the demands made upon you. Further, Mr. Muir, as counsel, proves to the entire satisfaction of the accused that all plans are old, stale, flat, and profitless; even Jackson's is no good; but there are such plans as his suggestion of a grate made of perforated plate, or the still better plan of throwing 40 shovels of coal backwards, to about 20 shovels of red-hot coke in front, provided the boiler is large enough. Any manufacturer fully imbued with Mr. Muir's moral, historical, and scientific views, would certainly resist to the utmost legislative enactments, so unjust and exorbitant in their demands as he announces them.

Take it as regards the science only—that is, the chemistry of combustion, the only part Mr. Muir ignored as unnecessary (because not himself versed in the subject): we then find that the application of chemistry, or, which is the same, the unerring laws of Nature, would reduce the whole discussion to one leading to the most economical method for particular fuels, and their peculiar applications to the various operations in arts and manufactures. But I tell Mr. Muir, without fear of contradiction by any chemist, that he is utterly wrong in stating that smoke can be burnt; that smoke is formed in the furnace; that all the requisite air can be got through the grate bars; and that a perforated plate may be substituted for furnace grate bars. Discussed on public grounds, the public do not care about the how to prevent smoke; but discussed as affecting the manufacturer, the light of science alone can direct him unerringly in the best selection, and the avoidance of all plans fabricated on principles entirely at variance with the simplest elements of chemistry.

32, Moorgate-street, Jan. 18.

H. DIRKS.

PEAT, AS A SMELTING FUEL.

Sir,—In our letter of the 6th instant, we promised your correspondent further information respecting the capabilities of Ireland to supply, for 500 years to come, this country in the finer qualities of iron, which is now imported from Russia, Sweden, &c. With your permission, we will redeem our promise.

In 1809, a parliamentary warrant was issued, appointing certain commissioners to enquire into the nature and extent of the several bogs in Ireland, and the possibility of draining and reclaiming them. The said commissioners made the required investigation, and communicated to the House of Commons the results of their several enquiries, together with the evidence on which the results were founded, in a series of four reports.

The first report was made on a district containing 35,430 English acres; the second report, on 233,538; the third, on 474,508; and the fourth, on 305,012 English acres, all of which had been minutely surveyed and levelled. These four reports included twenty-five local reports, containing the opinions of ten different engineers. In addition to 1,049,588 English acres surveyed by authority of the commission, there were 1,816,642 acres subjected only to their partial examination, making the total aggregate amount of bog lands in Ireland to be not less than 2,866,230 acres; but this amount does not contain all the bogs of Ireland—to our own knowledge, a gentleman of our acquaintance holds from 800 to 1000 acres of splendid mountain bog not noticed by the commissioners, and there may be thousands of acres elsewhere used as mountain pasture; we feel, therefore, justified in taking the aggregate amount at 3,000,000 acres of bog.

We next require to know the average depth of these bogs, and for this purpose we will make use of the report presented to the House of Commons, in 1861, by Sir Robert Kane, Director of the Museum of Irish Industry. A description is given in that report of 27 specimens of peat, taken from various bogs in Ireland, with the names of the localities from whence obtained, the average depth of bog, and number of acres; and we believe we are correct in stating that the average depth was 21½ feet, representing 286,890 acres—some of the bogs were 30 and 40 feet deep. From the report of the commissioners of 1809, we select 120,000 acres, with an average depth of 23 feet; and 178,000 acres, at an average depth of 13½ feet: taking an average of the whole would give 19½ feet. A period of upwards of 40 years has elapsed since Mr. Griffith, one of the commissioners, furnished his appendix to the fourth report, wherein he states that he "had an opportunity of observing during 20 years the growth of a bog, which amounted to 2 inches per year." He informs us that "he was enabled clearly to observe this fact from a turf bank having been cut into the place where the lake formerly was; and from the variety in the colour and texture, he calculated the annual growth of the moss with nearly as much accuracy as the age of a Scotch fir tree may be determined, by observing the number of concentric rings when the stem is cut across."

In the course of the examination instituted by the commission, it was ascertained that by far the larger portion of these bogs had been unclaimed and uncultivated since the time of their formation; and now, after nearly half a century, they are still in the same state, but improving in depth and quality, if we are to credit Mr. Griffith's report.

From the 3,000,000 acres with an average depth of 19½ feet, let us, for the purpose of making solidified peat, take 2,000,000 acres with (say) an average depth of only 12½ feet: 100 square yards, 12½ feet deep = 180 cubic yards of air-dried peat, weighing about 72 tons. This is equal to 8712 cubic yards, or 3486 tons per English acre = 2,000,000 × 3486 = 6,972,000,000 tons of air-dried peat.

As we find, however, that air-dried peat contains from 20 to 30 per cent. of moisture, which is to be got rid of before being solidified, we will deduct from the 6,972,000,000 tons (say) one-third, or 33⅓ per cent., for moisture. This will give us 2,324,000,000 tons of water, leaving us still 4,648,000,000 tons of solidified peat. By making use of the present wasteful means of manufacturing iron, we will allow 3 tons of solidified peat to 1 ton of bar-iron—that is, 2 tons for smelting the ore, and 1 ton for the refining, which would give us 1,549,333,333 tons of bar-iron—although we feel assured that 1½ tons of best solidified peat only would be necessary by our new patent process, which would increase the production of iron in an equal ratio; but, as we stated to your correspondent that we believed we could satisfy him that, for 500 years to come, this country would not require to draw her supplies of the finer quality of iron from either her colonies or foreign countries, we will take the 1,549,333,333 tons, and divide by 500 years; and we find the result to be 3,098,666 tons.

We have not been able to ascertain correctly the amount of acres of bog lands in England, Scotland, and Wales, it may amount to an equal quantity as Ireland; but, taking it at the one-half, have our ironmasters any cause to fear a want of fuel, and that of the very best description, for centuries to come?

In the year 1840, the entire make of Great Britain was 1,300,000 tons, which has now increased up to 2,700,000 tons of pig-iron; but, as we have shown, in the foregoing statements, that for 500 years to come there is abundance of fuel, equal, if not superior, to wood-charcoal, to make 3,098,666 tons of bar-iron annually for that period, we think we have redeemed our promise to your correspondent; and we will conclude with a letter from Mr. J. F. Summerhill, a gentleman personally unknown to us, although apparently interested in the subject, and who made experiments when manager of the Osier Bed Iron and Tin Plate Company Works, Horsley Fields, Wolverhampton, of which the following he has submitted to us as the result:—

Messrs. Gwynne and Co.—Seeing a letter from you in the *Mining Journal* of the 6th inst., "On Peat as a Smelting Fuel," in corroboration of your statements, I beg to inform you that I have made iron in the charcoal fire from peat charred, and not compressed. The first sample that I tried was 20 cwt. of peat out of Flintshire, and the weight of charcoal that I made was 2 tons 11 cwt. 6 qrs. 27 lbs. from that weight of peat. If that peat had been compressed, I believe the results would have been one-third more. The iron from it I have made into tin plates, and I never saw better iron in my life. The tin plates I sent to be tried to one of the first houses in Wolverhampton, and the report that I received from them was "that they were the best tin plates they had ever worked up."

Weight for weight, charcoal from peat has a greater tendency to make iron "burrow," as it is technically called in the iron trade. It is very suitable for wire iron, and iron for the finer descriptions of steel. I was surprised when I saw the weight of your patent fuel. I am confident that with fuel of that density a moderate-sized blast-furnace could be worked with the rich ores of Cumberland, or any of the oxides of iron ore that this country contains, and make a pig-iron equal to Russia, Sweden, or Norway, without the peat being charred. The reason of the iron being so much better from charcoal, or peat fuel, is the absence of sulphur and the presence of soda in the fuel. Coal and coke contain not only sulphur, but other deleterious substances injurious to the make of good iron.

The pressure of blast that I carried with the peat was 2½ lbs. per square inch, and your fuel, I am confident, would stand the regular pressure of blast that is used in blast-furnaces. I can see no reason that we should draw our supplies of best iron from other countries, when we have such an abundance of materials in our own country and in the sister Kingdom to work on, and make iron equal to any that is imported from other countries.

My sincere desire is that your time and skill may be amply rewarded for bringing out this invaluable fuel for smelting purposes, as if it is carried out to its fullest extent this country will reap a valuable boon, and be independent of other countries for its best iron for years to come.

You are at liberty to make any use of these few remarks that I have sent you, if you think them worth using in any way; they are facts, and "facts are stubborn things." *Are Hill-terrace, Sheffield, Jan. 11.*

JOHN FAYE SUMMERHILL.

We have a number of other letters bearing upon the same subject, but we must not occupy any more of your valuable space.

Besse's Wharf, Strand, Jan. 12. GWYNNE AND CO.

GOLD MINING.

Sir,—The ridiculous, if not absolutely serious, position of some of those gentlemen who have embarked their capital in gold mining, is patent to all. The great error is plainly traceable to sheer ignorance in every stage, through every department. Men bought, they knew not what, and others confided the use of money to, they knew not who. One company sent quicksilver for amalgamating the gold, at a considerable expense, across the Isthmus on to San Francisco, which is an exporting port of that very article, from the New Almaden Mine. Another sends machinery for the same route, and which was sent back again, as being too formidable in size and weight for the available means of transit. Of course, all such expenses (and it were useless to enumerate them here) had to come out of the common fund, and ignorance ought to have been debited in the balance-sheet with seven-eighths of the amount which has been charged to California. Thus California has been put into a false position, as a cloak for ignorance.

I may have done something, in my former communications, to convey a more just impression of the capabilities of California; I now beg to hand you an extract from the *San Francisco Times and Transcript*. It is evidently written with much candour, as I am willing to testify to its truthfulness by experience there. There is only one point to which I will more particularly allude, and which is that of gold "holding in depth." The evidence of this writer goes to prove the point in his reference to the Mount Washington Quartz Company. "They have gone 300 ft. down from the outcroppings of the vein, and 100 ft. into the trap-rock. Specimens at this depth exhibit a richness of 70 per cent. greater than the surface quartz." This fact goes to prove the correctness of Mr. Attwood's of the Agua Fria Company—reported desirable position in relation to the perpetuation of gold as he goes deeper in Grass Valley; from whence, I believe, he has been sending gold home pretty regularly. There can be no doubt of success attending the efforts of those representing in California the interests of those others who send them; providing that those who are sent can analyse, and thus discover the requirements, and can adapt themselves and their appliances to those requirements, apart from, and beyond, the mere routine and force of habit. These observations, of course, cannot apply to those who are totally ignorant of mining, and of mechanics.—*Tribune, Devon, Jan. 11.*

W. KATHORNE GILL.

THE BUSINESS OF QUARTZ MINING.—No class of men in California have been subjected to more disappointment and loss than those engaged in quartz mining. Attention was first given to this pursuit in 1850, and forthwith the greedy ambition of thousands directed to grand schemes of speculation based upon the reported richness of the gold-bearing quartz veins which were found in various sections of the State. Locations were nominal capitalists, represented in showy certificates of stock, not really worth the paper upon which they were printed. To give some idea of credit to these operations, it became necessary that mills should be erected, and men set to work. This was duly effected, and a lot of useless trash, in the way of new-fangled machinery, was conveyed to the claims that had been selected, and men employed who knew nothing about what they undertook. Of course all such experiments utterly failed, as far as the actual results of the business were concerned, and, fortunately, too, the sale of shares in those projects in the Atlantic capitals, and in Europe. About half a dozen companies were organised in New York, and some of the times as many in London. The former never reached any standing, even among the fancies of Wall-street, while the foreign companies in several instances grew into high vogue, and shares were sold at a premium. While these operations were bringing into bad repute the prospect of the business of quartz mining, the greatest resources of the country. These, however, were rendered mainly dependent upon their own means, capitalists refusing their aid to a pursuit which had grown into general disrepute through the ill-begotten schemes of wild speculation. By slow degrees the prejudice which had so long obtained began to lessen before the lights of science, and there did exist rock-riveted riches in the quartz leads of California, then the real difficulties in their development were made known. The application of steam or water power to the processes of crushing and amalgamating could not be obtained without a considerable outlay, and it had already been proved that much of the machinery contained a higher price than would warrant its employment in most of the enterprises that had been undertaken. Still another difficulty in extended operations arose from the nature of the titles to quartz claims. Yet amid all these obstacles the faith and energy of those engaged in quartz mining have been sufficient to establish the profitability of the business when properly conducted. There are now probably not less than twenty companies in the State who are realising a benefit upon California, by proving to the source of the State. In the report made by Dr. Trautman to the last Legislature, the prosperous condition of various quartz mills in Grass Valley and other sections of the interior was set forth. We learn that the further investigations of the State geologists show the present season promises even more gratifying results. Among the instances where returns, in the case of the Mount Washington Quartz Company at French Gulch, in Shasta County, last year the company spent \$30,000 in improving the lead, and have since obtained specimens of the rock taken out at this depth exhibit a richness 70 per cent. greater than the surface quartz. This fact alone destroys the theory which has found so many supporters, denying that the richness of the leads was increased below the surface. After a long and patient trial of all the late inventions for amalgamating gold from quartz, thus far opinion has settled in favour of the common arrastra, and these are now becoming generally adopted in the principal mills throughout the State. The process is slow, but sure and cheaper than any other, and saves a much greater proportion of the gold. The Washington Quartz Company use a water-wheel 40 feet in diameter, and have 12 stampers. Their works cost up to the present time about \$70,000, including railroad, tunnels, &c. We are informed by an intelligent gentleman who has recently visited the place, that the company's receipts amount to \$65,000 per month, and their whole outlay in wages and other expenses does not exceed \$2,000 for the same period. The surface quartz veins in Grass Valley would probably require an average of \$25,000 each to open. The outcroppings at this and other localities afford as favourable indications as were exhibited where the experiment has been successfully carried out. In Calaveras, El Dorado, and Mariposa counties, we have been informed of a number of enterprises in quartz mining, undertaken during the past summer under highly encouraging auspices. The business, indeed, in all its aspects seems to have received a new life and impetus here at home, and is likely very soon to hold a place in public estimation which has never yet been accorded, and equal to the anticipation of the most sanguine who have devoted themselves to its pursuit. In regard to the views entertained abroad as to the business of quartz mining, we are advised that all the companies which have been formed in London and Paris have suffered a collapse, and their directors are about determining whether to go on or give up. Agents have been sent to California to investigate fully the condition and prospects of quartz mining, and their reports have gone forward. These we understand present a much more satisfactory view of the business than had been looked for, and may effect a restoration of public confidence abroad. A considerable portion of the costly machinery that has been shipped to California from Europe has been sent back, engines and boilers only being retained. The impediment to the safe prosecution of quartz mining, which most seriously embarrasses the movements of capitalists, is the insufficiency of titles to claims, under the present laws and regulations which govern that kind of property. To remedy this difficulty, it has been proposed that a legislative enactment should be obtained, by which the regulations of quartz miners should have the same legal effect in deciding the tenures of quartz claims as those of placer miners in the determination of theirs. In other words, a division of the two interests is desired, with the same general law applied to all, and the same government both. A convention of quartz miners has been suggested to take into consideration the whole subject of quartz mining, to make such general regulations among those concerned in the business as shall be deemed expedient, and to petition the Legislature for such an enactment in regard to the acquisition of property in quartz veins as is compatible with law legislation, and will place one of the most important pursuits in the State upon a sound and substantial basis.

THE BRITISH AUSTRALIAN GOLD MINING COMPANY.

Sir,—The *Mining Journal* published on Saturday last three letters, from Mr. Guedalla, "Justitia," and Mr. H. E. Michel, with reference to my letter inserted in your *Journal* of the 6th, the subject of the prospects of the British Australian Gold Mining Company. I now call the attention of Mr. Guedalla, of the British Australian shareholders, and of the public, to the following facts:

1. On Dec. 16th, 1854, a statement appeared in the *Mining Journal* in substance as follows:—"The British Australian Mining Company have sent out to Mr. Dyer a portable steam-engine, and two amalgamating machines. Mr. Dyer can work 30 tons of earth per day, at a cost of 25s. for labour, and the staff, on the average, yields more than 1 oz. of gold per ton."

2. On the 23rd December, Mr. Guedalla wrote as follows:—"My patience is now completely exhausted, and I warn the chairman that, unless he speedily convenes a meeting for the purpose of winding-up, I will publish the history of this concoction."

3. On the 6th Jan., 1855, Mr. Guedalla states—"Now in this very connection there should be a public officer appointed, who, upon the sustained allegation of the sufferers, would be prepared to prosecute the directors."

4. On the same day I wrote you, calling attention to the favourable statement of the 16th Dec., and on the 13th Mr. Guedalla replies to my letter. He says—"Anonymous scribbles may sometimes be guessed at, and this one evidently winces under one of my home thrusts, which has reached him." I shall not notice the insulting epithet applied to me by him; but as he pledges his word he "was entirely ignorant of the advice received from Mr. Dyer," I ask what inference can we draw from the fact, that Mr. Guedalla, on the alert for every piece of intelligence, good, bad, or indifferent, relating to gold mines, could not, or would not, observe the *Mining Journal's* published statement, until I drew the attention of your readers to it three weeks after it appeared? He has now "no wish to have the company wound up," after threatening the chairman that he would publish its history, if not speedily wound up; and he knows "nothing about" the directors, after having suggested that they should be prosecuted. I presume Mr. Guedalla will explain that portion of his letter wherein he says, "I think, if I wished, I could be a little more personal, and show up the Liguanea," &c. I spoke not of the Jamaica mines—of Australia I wrote, and to Australia I confine myself.

With regard to "Justitia's" letter. I do not wish to exaggerate the company's prospects in the slightest; but I have no doubt that "Justitia's" estimate may be fully realised.

I do not understand Mr. Michel's letter, and, perhaps, he will be kind enough to explain it; as he first brings out a profit of from 9360l. to 100,000l., and then states "This sort of property bears no intrinsic value in itself, whatever it may do a century hence; and that, 'as fast as the ground is worked up, all its value ceases entirely, and nothing remains but gravel and rubbish.' If the company's estate is twenty miles in length, and the soil composed of nothing but gravel, rubbish, and gold, it surely has some 'intrinsic value' in itself."

In conclusion, I may now observe, that the three gentlemen, whose letters I have quoted, appear to be all sanguine of the ultimate success of the company. Mr. Guedalla does not wish it wound up, although he admits having always singled it out as

a mark for his vengeance; "Justitia" asserts that the profits will be 80,000l. a year; and Mr. Michel admits that any amount of profit, from 9360l. to 100,000l. per annum, might be made.—*Jan. 17.*

WESTMINSTER IMPROVEMENT BONDS.

Sir,—At last the crash has come, which I so long ago foretold in the columns of your *Journal* would happen. The 500l. shares have been sold repeatedly at only 100l., and the 1000l. bonds at 500l., with the dividend included, due in January. Here is valuable property reduced by the grossest mismanagement to 1-4th of its cost price. Seeing that further bolstering was useless, the following circular has been issued:—

"Westminster Improvement Commission, 36, Great George-street.—I am directed by the Westminster Improvement Commissioners to inform you that, in consequence of the legal proceedings which have been recently adopted by several bondholders to enforce payment of their bonds in preference to all other bondholders, the commissioners are embarrassed in the impartial exercise of their parliamentary powers, and in the present state of monetary affairs are prevented from raising the necessary funds to complete the improvement and realisation of the property applicable to the discharge of the mortgage and bond debts of the commission. Under these circumstances, the commissioners consider it their duty to submit to the bondholders a statement of the property and its liabilities, and to consult with them on the measures to be adopted for the protection of their interests. Accordingly, they have appointed a meeting of bondholders to be held at the London Tavern, Bishopsgate-street, on Friday, the 26th January. In the meantime, the payment of the interest due this month is necessarily postponed.—THOMAS BILLINGS, Clerk."

Let us now dissect the contents. There is a ridiculous affectation of *neuf-neuf* in the whole composition. The poor bondholders who have commenced legal proceedings to recover the capital advanced by them, at only 5 per cent. interest, deserve the highest praise. Will it be contended that any one would have touched them with a pair of tongs, if it were supposed for an instant that those due in July, 1854, would not have been paid off? There is now as much money as ever, on good security, but there is, fortunately, much more caution, and people will not, as formerly, rush headlong into concerns without some investigation. The commissioners are highly to be blamed for having been patching-up and tinkering for such a long period, after it was quite palpable that ruin stared them in the face. This meeting ought to have been convened at least a twelvemonth back; but now I do not think it too late, if the bondholders act vigorously, and take their affairs into their own hands. I prophesy that the worst is passed, and that a purchase at present prices, if kept for a few years, will turn out highly remunerative. The non-payment of interest has already seriously inconvenienced many ladies who were living on the miserable pittance derived from them. At the meeting on the 26th inst., let no hasty decision be come to, on any averages, and Mr. Michel truly observes, "to part with all of them at once, treated with great caution. Time and money are all that is wanting to effect a perfect cure. Let the following facts be elicited:—1. The dates when the bonds were issued, and at what price.—2. The total amount in circulation.—3. The balance-sheet. Houses built in flats will soon become much in vogue, particularly with those of moderate incomes. Those in Victoria-street seem substantially built, are in an improving neighbourhood, and the railway will, when finished, add to their value."—*Paris, Jan. 17.*

H. GUERDALLA.

WEST MARIPOSA.

Sir,—In about a month I shall convene a meeting of the scripholders of this company. Mr. Ambrose Moore, director of the London Joint-Stock Bank, continues to set us all at defiance. For nearly four years we have not had a balance-sheet or meeting. When such an example is set by a person who ought to know better, who can be surprised at others doing so likewise, and imitating those hitherto considered by some as above them in high principle and business-like conduct? In the case of Metcalfe, a share dealer, heard a few days back in the Insolvent Court, he stated, on examination, he had bought 625 shares of this bubble at 25s. a share. Being likewise seized hold of the universal means in December, 1854, to part with all of them at large premiums, and by never giving a balance-sheet or holding a meeting since then, have so exhausted every one's patience, that the class who, unfortunately, embarked deeply in them, throughout the length and breadth of the United Kingdom, are, out of sheer necessity, compelled to sell them for anything they will fetch, and directors are now the only buyers, as they are buying them up in case of a judgment might arise. I should be highly delighted to see my shares value in price 10s. or 50s., which are now at 2s. 6d. and 5s.; but such statements are only calculated to begot fresh victims. In nearly every case in which I hold property there is not more than the 3s. remaining on an average, and Mr. Michel truly observes, "to part with all of them at once, treated with great caution. Time and money are all that is wanting to effect a perfect cure. Let the following facts be elicited:—1. The dates when the bonds were issued, and at what price.—2. The total amount in circulation.—3. The balance-sheet. Houses built in flats will soon become much in vogue, particularly with those of moderate incomes. Those in Victoria-street seem substantially built, are in an improving neighbourhood, and the railway will, when finished, add to their value."—*Paris, Jan. 17.*

H. GUERDALLA.

AUSTRALIAN FREEHOLD.

Sir,—A meeting of registered shareholders took place on the 8th inst., when three new directors were elected in place of Mr. Young (who has gone to Australia), Major Hawkes, and Mr. Ord. The seven chosen as the committee of management to wind-up were—Sir W. B. Johnson, Messrs. Lutwyche, Ronald, Lindo, Tucker, Clarke, and Raymond. They have convened a special meeting for the 18th, when the dissolution will be formally agreed to, and 8s. 6d. will be ultimately returned. It is proposed to draw up a report, and issue it to all the scripholders, with the balance-sheet. Some parties are going to petition the Master for a winding-up. What their motives can be, now that they have got such a good dividend, I am at a loss to conjecture, but it will be my duty, as a holder of 825 shares, to watch them narrowly, and report fearlessly my views in your *Journal*. When combined action is desirable, no one helps me; and when a dividend is recovered from the fire of double what was expected by myself and others, under the present state of the law in England, impediments are thrown in our way to prevent us getting it. It is really too bad.

H. GUERDALLA.

"JUSTITIA," AND GOLD MINING COMPANIES.

Sir,—It is very difficult to decide what part to play in the new phase about to be witnessed in these bubbles. The above anonymous scribbler actually, for effect, puts an advertisement into your *Journal*, to warn the public against selling any shares at present value of a few shillings, as there is a conspiracy about, and has been for some time holding the universal means in December, 1854, to part with all of them at large premiums, and by never giving a balance-sheet or holding a meeting since then, have so exhausted every one's patience, that the class who, unfortunately, embarked deeply in them, throughout the length and breadth of the United Kingdom, are, out of sheer necessity, compelled to sell them for anything they will fetch, and directors are now the only buyers, as they are buying them up in case of a judgment might arise. I should be highly delighted to see my shares value in price 10s. or 50s., which are now at 2s. 6d. and 5s.; but such statements are only calculated to begot fresh victims. In nearly every case in which I hold property there is not more than the 3s. remaining on an average, and Mr. Michel truly observes, "to part with all of them at once, treated with great caution. Time and money are all that is wanting to effect a perfect cure. Let the following facts be elicited:—1. The dates when the bonds were issued, and at what price.—2. The total amount in circulation.—3. The balance-sheet. Houses built in flats will soon become much in vogue, particularly with those of moderate incomes. Those in Victoria-street seem substantially built, are in an improving neighbourhood, and the railway will, when finished, add to their value."—*Paris, Jan. 17.*

H. GUERDALLA.

THE GOLD MINES OF BRAZIL—COCAES MINE.

Sir,—The Cocaes Mine, as well as nearly all the gold mines of Brazil, is in the Minas Geraes; it is situated on a lofty chain of mountains, running nearly east and west, and is 50 miles north of Ouro Preto, the capital and commercial city of Minas Geraes. The commercial road from Rio de Janeiro to the diamond district runs through the mine, and the town of Cocaes one mile to the north of it. The chain of mountains on which the Cocaes Mine is situated is very remarkable for the number of mines it has produced. To the west are the Cachoeira, Roca Grande, Gongo Soco, Camara, Ouro Fino, Trindade, and San Miguel, and to the east the Brucutu Mines. These mines extend over a length of 40 miles of this mountain, and with the exception of Roca Grande and the Camara, which are on quartz lodes, are all on the same jacutinga formation, a section of San Miguel and Brucutu being on a branch lode, which separates from the main body to the east. The mine of Gongo Soco, and again unites east of the Brucutu Mine. It will be almost superfluous to say that this formation has produced the richest gold mines of Brazil. The auriferous formation on which the mining works of Cocaes are carried on is a micaceous iron ore, geologically named iron mica slate, but universally known in Minas Geraes as jacutinga, the constituent parts of which are iron mica and quartz; this bed varies in thickness from 10 to 50 fms. About the middle of this jacutinga formation the manganese mostly abounds in combination, forming a distinct layer, parallel with the general strata, which renders this part of from 5 ft. to as many fathoms thick, and is discovered by its very black, iron, micaceous, and friable nature; but there is an exception to this rule. In one part of the Cocaes Mine this soft bed has graduated into a compact rock, where the manganese is replaced by quartz; this layer is what may with propriety be termed the lode. In this layer the great riches of the Cocaes and other mines on this formation are deposited; veins and bunches of native gold are found, the veins running parallel with the strata, which dip south at an angle varying from 25° to 30° with the horizon. The bunches or lines of gold in these veins have a limited horizontal course, having an easterly inclination of about 20°, and frequently when there is no gold visible to the naked eye it is found disseminated throughout this lode. The gold-bearing veins in almost without exception accompanied a vein of quartz, foliated iron glass, sealy tale, and common mica. The rock on which this bed of jacutinga rests is a variety of talose and clay-slate, alternating with iron mica, and in many places found approaching into ferruginous limestone, but without the presence of tale, which passes over into ferruginous limestone, is generally found overlying it, but at Cocaes it is replaced by chlorite slate. Further east, at Brucutu, the jacutinga rests on clay, and overlying it is a variety of talose slate and iron mica.

The company's works at the Cocaes Mine were carried on for a period of 10 years about the middle part of the east, on veins which had been extensively worked upon by the former proprietors, by whom almost incredible quantities of gold were extracted. These veins were afterwards followed down by the company to a great depth, where the lode becoming hard, and the veins poor, and deluged by water, that part of the mine was abandoned, and the works were afterwards carried on further east, on some veins which had also been extensively worked by the former proprietors to an immense profit. Here the company's works were unsuccessfully carried on for a period of two years, and were on the point of being abandoned, when it was discovered that in a level which had a short time previous been driven for an audit, they had crossed the lode, which had at this place graduated into a compact rock, and had unknowingly intersected and passed through a rich vein of gold, with gold also disseminated throughout the lode. The entrance to this level was from the side of the mountain, and the blacks wheeling the stuff broken from this place to the surface had stolen the rich gold stones, and sold them to the natives, but ultimately one of the blacks divulged the secret. The lode was immediately opened upon, and the works were afterwards carried on upon this and some other lines, which were afterwards discovered to the east of it, and so rich were these veins that several pounds of gold per day were extracted from them. But the mine afterwards came under the management of a Capt. Bowden, when these stops were allowed to crash together—an occurrence which, under present circumstances, renders their recovery hopeless. The works have since been carried on in the vicinity of these stops; the driving the shallow adit east includes all the explorations, in which several veins have been passed through, which have not been followed below the level, and the level being as near the surface that when a vein is met with it affords no great quantity of ore, and the progress of the level being so slow they are frequently deprived of returns. To follow the veins being in almost without exception accompanied a vein of quartz, foliated iron glass, sealy tale, and common mica. The rock on which this bed of jacutinga rests is a variety of talose and clay-slate, alternating with iron mica, and in many places found approaching into ferruginous limestone, but without the presence of tale, which passes over into ferruginous limestone, is generally found overlying it, but at Cocaes it is replaced by chlorite slate. Further east, at Brucutu, the jacutinga rests on clay, and overlying it is a variety of talose slate and iron mica.

at a great elevation, the lode cropping out at the ridge of the mountain the whole length, and I should think, from the immense ancient diggings at the foot of this mountain, these are fair indications of the metal contained in the lode above; portions of the lode can be found in all parts of the valley below. More than a mile of the lode is also standing almost entire at the west end of the sett, which from its great elevation, and in the midst of the forest, can be explored at little expense. *Helston, Jan. 9.*

JERU HITCHING.

COPPER MINING AND COPPER SMELTING.

Sir,—This subject has so often been mooted in your columns that further allusion to it would almost appear to be needless, and I should not have troubled you did I not deem it necessary to make some remarks upon a communication which appeared from "Your Reader," in last week's *Journal*. He there acknowledges that smelting is profitable, but states his mining friend informs him that the smelting of ores by miners would be ruinous in the disposal of copper, and that it probably would end in their obtaining 20 per cent. less instead of 20 per cent. more; and in addition to this, it would involve them in transactions requiring further capital, and special knowledge, inevitable on the risks and uncertainties of such transactions.

The gist of the various communications which have from time to time appeared in the *Mining Journal*, seem to have shown that the smelter obtains a large profit at the expense of the miner. This your correspondent does not appear to controvert, although he throws some doubts on the fact. It requires some time to convert the ore into copper—this is unquestionable; and no one would advocate that every small mine, producing from 20 to 30 tons per month, should smelt its own produce, but it is perfectly feasible that smelting-works could be established to smelt ore, returning the copper, after all reasonable charges had been paid. I do not see why the manufacturer should not purchase his copper of the miner, as well as he now does of the middleman, the smelter, who obtains a profit from both, and is thereby enabled to swell his plethoric gains. Foreign copper smelting-works, with an enhanced cost of fuel, have made profits, why should not the experiment be tried in England? Hundreds of thousands of pounds have been wasted in gold mining schemes, and other questionable adventures, yet this legitimate speculation has never been fairly tried. Figures could be shown to prove how profitable it would be, were such necessary, but these are bootless while such discord exists among the so-called mining interest, which has tended to bring all speculation in mining to disrepute. You have always advocated the cause of both miner and consumer—the columns of the *Journal* have been open to all parties, whenever they have exercised due discretion. I do not believe that independent smelting will make any way for some period to come; the agitation, however, will be resumed from time to time, and there is no doubt that it will eventually result in an onward movement for the good of "one and all."—*Paddington, Jan. 8.*

ANOTHER READER.

COBRE COPPER MINERS, AND SWANSEA SMELTERS.

Sir,—My attention has just been called to a sketch of the Progress of Mining in 1854 contained in the *Mining Journal* of 30th of December, which professes to give a table of mines, showing "the amounts paid by each from the 1st of January to the 31st of December, 1854."

I avail myself of your columns (to which topics of the kind) to correct a very considerable error, concerning not the least important of the foreign mines mentioned in that sketch, the Cobres, which is put down as having paid in dividends only 4l. on each 40l. share during 1854. The fact is, that the Cobre Company has paid during the period in question not 4l. per share but 4s.—viz., 2l. in Feb. and 4l. in August—and is on the eve of declaring another dividend, which will be payable early in February, and which cannot be less than 4l.; and, comparing the sales of ore made during the last six months with those of the six previous months, seems as likely as not to be 5l. I am, of course, aware that the half-yearly dividend is not declared on the profits of the exact six preceding months; the half-yearly dividend is not declared on the profits of the exact six preceding months; taking one half-year with another, a calculation based on the six months immediately preceding such meeting will give a tolerably correct result. The quantity of ore sold by the mine for six months far exceeds that sold by any other, that it may not be without interest to some of your readers to have the sales placed before them.

We find the sales from February 14th to July 18th inclusive, amount to about 6100 tons of ore, which produced in money about 112,000l. It may fairly be inferred that some 48,000l. of this was profit, from the fact that the company declared in July and paid in August a half-yearly dividend of 4l. on each of their 12,000 shares.

The sales made during the second six months of the year amount already to about 7300 tons, which have sold for about 137,000l., to say nothing of a further sampling of about 1000 tons more, which will be sold on the 16th of this month, and cannot produce much less than 20,000l., swelling the total of the half-yearly sales to 8300 tons, producing a little short of 150,000l.

I have said enough to vindicate the Cobre Company from having paid only 4l. per share in 1854, and to show that it is more likely for the present to pay 4l. than 2l. half-yearly, even should the new mineral property (which the directors at the July meeting told their co-proprietors had been offered to them, and took power to have surveyed by a competent agent from England) not turn out as valuable as I trust it will prove to be, so continuing indefinitely the profits of the company and the dividends of the shareholders. And here I would close my letter, but that there is another point to which I would, as a miner, call the attention of every proprietor.

There has now for six months been a vacant seat at the board of directors. It has been reported—"I don't know with what truth—that a gentleman will be brought forward to fill that vacant seat who is connected with a smelting company, well known not only at Swansea, but wherever efforts to improve the condition of persons employed in factory labour are canvassed and appreciated."

Such a man would be well substituted even for the eminent mercantile name which death has erased from the list of our directors, and would add strength to any board except that of a mining company. I do not go the length that many miners do in their extreme jealousy of smelters, but I do think that a smelter is as much out of his place in the direction of a mining company as a carrier or freighter is in the direction of the railway which carries his goods or produce. A smelter, however much he would wish not to do so, will naturally look at many questions from the smelters', not from the miners' point of view, and when the interests of miner and smelter are conflicting, can scarcely fail to have his decision (on questions of such those connected with our withholding our ore from the general market in 1853, and employing *banket*, thereby becoming *pro tanto* our own smelters), unintentionally and unwittingly biased by his private interests as a smelter. For this reason so long as the interests of miner and smelter are, or are believed to be, conflicting, I think that, as a matter of good taste, a smelter should decline a seat at the board of a mining company, were it offered to him. I trust, however, that in the present case the report I have alluded to is unfounded. At present one of the chief recommendations of the Cobre Company, as compared with other mining companies, is to be extreme jealousy of the directors, one of whom, I believe, holds nearly a thousand out of the total twelve thousand shares—the best possible guarantee that the interests of his co-proprietors will not be trifled with—and who numbers among his colleagues mercantile men to whose business talents and city experience I feel we all owe much of the success which we have passed through the ordeal of a succession of Spanish law suits; and, in spite of Cuban earthquakes, cholera among our miners, a scarcity of labour, and high freightage, now see our mine in a position to bring into the Swansea market some 1500 tons of high quality ore monthly.

[ADVERTISEMENT.]

MR. N. ENNOR'S RECENT SURVEY OF MINES.

Sir,—From press of business at home, I have been obliged to return from my tour of inspection in Cornwall and Devon; but, before doing so, I thoroughly examined the undermentioned mines, and made a cursory survey of as many more. At all of which I beg publicly to thank the captains and pursers for the kind reception and treatment—being only denied in two mines, which I shall refer to hereafter. Those of your readers who may be desirous of obtaining reports on any or each of the following mines, can do so by writing me at Wivelcome, Somerset:—

Devon Burra Burra	Wheal Arthur
Bordridge Consols	Wheal Edward
Bedford United	Wheal Trelawny
West Sortridge	North Trelawny
West Phoenix	West Alfred
Wheal Ludcott	Great Wheal Alfred
North Sortridge	Alfred Consols
Great and East Sortridge	East Alfred
Butterdon	Wheal Carpenter (Gwinear)
Penhauger	South Providence
East Trelawny	Gilmer
West Par Consols	West Providence
Great Grinnis	Wheal Tremayne
Great Polgooth	Roseane
Wheal Golden	North Pool
Wheal Penhale	North Crofty
Wheal Klity	East Buller
Wheal Lovel	United Mines
Trumpet Consols	Clijah and Wentworth
Tranvaek Consols	Real Jane
Trerice Consols	Great Ewas
West Polberru	Wheal Mary Great Consols
Devonshire	Carvath
East Wheal Vor	Tregoning
St. Aubyn and Grylls	Tremollett Down
Keneggy	Great Sheba Consols
Trenow Consols	Devon Great Consols
Hingston Down Consols, North	Silver Brook
Borey Tracey Coal	South Devon Consols
West Delabole Quarry	St. Neot Quarry
Lamb's House Quarry	East Delabole Quarry
	Trevalga Quarry

Wivelcome, Jan. 17.

N. ENNOR.

DEVON BURRA BURRA MINE, AND ITS MANAGEMENT.

Sir,—This mine is situated about two miles east of Tavistock, on the Dartmoor road. It was first opened on a large north and south lode, in which good copper was found for about 30 fms. in length, but not in a sufficient quantity to pay. During my rounds I have called at this mine two or three times, when I advised them to cease for an east and west lode, as I had no doubt one came up against this ore pit. After a time they pretended to have found the east and west lode, when they fixed an engine, sunk an engine-shaft, and raised a few tons of copper. About four weeks since I again called to examine it for a shareholder. After changing my clothes, I was informed the person I came for had no shares in the mine, so that I had to beat a retreat, without putting foot below the surface. In my late round, I called again with an order from the same person, when I was allowed to go below. I was very much surprised to see they had erected a powerful steam-engine, and sunk an engine-shaft 40 fms. deep on a lode running about 20° east of south, which would never meet the cross lode the ore was seen in for a mile beyond this sett.

Not a single shilling of the enormous sum spent in of any value, further than the undermentioned. This I pointed out to the captain, who, I think, is a new comer. After some conversation with him as to there being east and west lodes further north, he said he had of late discovered one by shodding; this I went to see, and found it to be a large east and west lode, meeting the cross lode about the point the ore is seen in; but this lode is 70 fms. north of the engine-shaft, and dipping north from 2 to 3 ft. in 6 ft.; it is a very large and promising lode, presenting ore even to the surface. This piece of an east and west lode is between the great east or ore cross lode and Wheal Surprise cross lode, which are about 300 fms. apart. The engine-shaft is on one, and two or three others are between the two large ones. This is not an unlikely piece of lode to produce copper, and particularly so when we see the cross lode that a little east of south producing copper. Now, what is to be done under such a glaring blunder? My advice to the manager was to sink a diagonal shaft at once on the great east and west lode, and let the engine draw the water from the cross lode,

* See Dunn's "Winning and Working of Mines," 2d edition, p. 293.

near the point from which such cross-cut would be driven. Should a lode in this part of the mine be found productive, it could be worked with very little additional expense, as the cost of almost every department of the establishment would be the same. A fair development of all the places I have mentioned would not increase the expenditure of the mine to more than about 400l. per month, and the returns in a few months would be, by opening on the before-mentioned important places, more than enough to cover all expenses; say—

200 tons of ore, at 6s. 10d. per ton £1300 0 0
16 tons of lead, at 20s. per ton £320 0 0—£1620 0 0

with all the chances of any great discoveries besides.

I am of opinion that a little extra capital, to be expended on pitwork to open out other lodes and drive new levels, would enable us to increase the returns above what I have estimated, and open up an excellent mine, with proportionate advantage to the proprietors.

Mr. CHASE in commenting on the report said, there were several portions of the ground that were productive, but would require more money to develop it. The mine was in a much better position than at the last meeting; they had opened a lead lode yielding 3 cwt. of silver-lead per fm., worth 25s. per fm. They had paid off nearly 3000l., and the mine was entirely clear of water.

Mr. FARRER wished to know if the winter water was now secure?

Mr. CHASE said that it was; and unless some accident happened to the machinery, which they could not anticipate, would remain so; that in removing the body of water they had spent from 500l. to 1000l. in putting down extra pitwork, so that they not only forked the mine, but could sink Wall's shaft 20 or 30 fms. deeper.

A SHAREHOLDER wished to know if any reduction in the monthly loss had been effected by Messrs. Chase?

Mr. CHASE replied: When it came into their office the loss was 800l. per month, it was now reduced to about 100l., as they would see by the last sale of ore; and, judging from the agent's report, they believed there were very great chances in the mine.—A SHAREHOLDER expressed his satisfaction at the report.

Mr. E. CHASE observed that the reports from Captain N. Seecombe could be perfectly relied upon.

Mr. SANDERS said he had no fault to find with any one; the mine itself was now in a better position than it had ever been within his recollection.

Mr. WHARTON moved, and Mr. PROCTER seconded, "That the report be adopted; that the mine, company, and affairs of the company, in future be placed and conducted on the Cost-book Principle; that the arrangement, rules, and regulations, as carried to the meeting, be received and adopted; and that the present directors be instructed to carry them out without delay."

A lengthened discussion ensued, which terminated with the resolution being carried by all the shareholders present, with but two dissentients. It was then moved, seconded, and carried unanimously, That the directors be the committee of management under the new system for the ensuing three months.

Mr. FARRER, after paying tribute to the exertions of the directors, proposed that the best thanks of the meeting be given to them.

Mr. SANDERS seconded the resolution, which was carried unanimously.

The CHAIRMAN, in returning thanks, said that under whatever method the mine was carried on, he would use his best exertions to make it a prosperous concern. He regretted they had been so long fighting against difficulties, but trusted they were nearly at an end. He could have wished Mr. Farrer would have given them his support, as he felt satisfied what they were doing was for the benefit of the company.

Mr. FARRER said, if he did not fully agree with their views, he would do nothing to their prejudice.—Mr. SANDERS having expressed himself in similar terms, the meeting separated.

ROBBINGTON MINING COMPANY.

A meeting of shareholders was held at Salvador House, Bishopsgate, on Tuesday, Mr. J. ENSON in the chair.

The CHAIRMAN, after briefly stating the objects of the meeting, suggested that any matter which shareholders wished to bring forward had better be reserved for discussion until after the special business of the day had been disposed of.

The following report from Messrs. Taylor and J. Meredith was then read:—

In our report, as read at the last general meeting, we recommended the sinking of Watson's engine-shaft, for the purpose of the more efficient development of both Harrison's and the south lode at a deeper level, and when approved of, we immediately commenced doing so, and it was sunk to the 64 fathom level very satisfactorily, but unexpectedly we cut a large feed of water in the bottom of the shaft, which appears to proceed from Harrison's lode. On account of this, our operations by way of sinking have been suspended, until we could fix Harrison's lode in the deep level cross-cut, when, if thought advisable, we should fix a lift and resume sinking the shaft, at the same time pumping the water by virtue of the engine to the deep adit level. In the deep level cross-cut, driving south, we have during the last few days cut Harrison's lode, about 45 fathoms east of the engine-shaft. This lode is full 6 ft. wide, and very open, issuing forth a very strong feed of water; it has two well-defined walls, and is composed of carbonate and sulphate (barites), with carbonate of lime, and not without a small portion of lead ore, but not so rich as the lode we are now sinking. This lode runs nearly parallel with the south lode, and if it does not get harder we shall be able to explore a good length of the same in a short time. We are of opinion that this lode should be driven with all possible speed, and should we be fortunate enough to meet with a productive lode here, it would be a sufficient guarantee to warrant the necessary outlay for further sinking Watson's engine-shaft, and thus systematically laying open this part of the mine, to prove both Harrison's and the south lode at a greater depth. The south lode in middle level, driving east, is 3 feet wide, with a congealed gossan, and sulphate of barites, and will yield about 2 cwt. of lead ore per fathom. This lode has had a promising appearance for the last 8 fms. driving, has yielded a little lead ore, and from the present appearance of the lode, we anticipate an improvement. The stope in back of the middle level, on the south lode, will yield about 3 cwt. of lead ore per fathom. The cross-cut in this level, driving towards Taylor's lode, has lately passed through a branch containing a little ore. Whether this is the lode or not we cannot positively say, but for our satisfaction we intend driving further north. The stope in back of the shallow level, on Taylor's lode, will yield about 3 cwt. of lead ore per fathom. The stope in bottom of the shallow level, on the same lode, will yield about 4 cwt. of lead ore per fathom. We beg to remind you our cost in future will not be so high as of late, having a good stock of timber and iron on the mine.

In reply to Mr. Turner, the CHAIRMAN said that hitherto the engine had proved sufficiently powerful, and would carry them 100 fms. below their present depth.

Mr. TURNER asked the report to say that the stope produced from 3 to 4 cwt.; was that enough to pay?

The CHAIRMAN said it would just about pay the costs; but the lode was improving, and they must bear in mind that the mine was now well laid open, and the costs reduced to about 200l. a month, with every prospect of increased returns. His view of the Robbington Mines was this (although he did not profess to be a practical miner), that there was every probability of its becoming a large mineral property. He concluded, and he thought it might reasonably be expected, that these lodes would ultimately become more productive than they were at present, and that when they got deeper, and into settled ground, they would have a very valuable mine indeed.

Mr. MINTON apprehended that the rush of water at present was not very great.

The CHAIRMAN said Mr. Minton was perfectly right. Up to the present time there had not been any great quantity of water in the mine.

The subjoined statement of accounts for four months, ending with costs for Nov., was then submitted:—

Balance last account.....	£362 11 10
Mine cost, August.....	147 0 11
" September.....	322 11 11
" October.....	247 15 8
" November.....	211 7 8
Stamps, &c.....	1 13 5=£1393 0 0
Call made in July.....	600 5 6
(less unpaid on and forfeited, 204l. 5s.)	325 15 1
Lead ore sold.....	161 1 6
Sulphate barites.....	9 15 0
Int. vet.....	0 1 7=1206 0 7
Leaving balance against the mine.....	£187 0 2

The statement of assets and liabilities (assuming all calls to be paid) showed a balance of the former of 130l. 6s. 10d.

The CHAIRMAN remarked that the accounts had not been audited, inasmuch as auditors had not been appointed; but the statement now before the meeting could be received, subject to audit. He would, therefore, move a resolution to that effect, and that the report be received and adopted.—The motion was seconded, and carried unanimously.

The CHAIRMAN informed the meeting that three letters had been received with reference to the forfeiture of shares, the parties in each instance expressing a wish to have them restored. He would read the letters, as he was most desirous that everything should be laid before the meeting in connection with the company's affairs.

The letters having been read, it was resolved that the forfeited shares be restored, subject to the payment of all calls and interest.

The CHAIRMAN said they had now to take into consideration the subject of their future financial affairs.

Mr. TURNER asked for the list of calls in arrears, which was handed to him, and returned without any remark.

The CHAIRMAN said he had not the slightest doubt that the whole of the calls in arrears would be promptly paid. It was, however, necessary to keep the company solvent, and for that purpose they must make a call, which would enable them to pay off all liabilities, and proceed with energy for the next three months. (There was a balance of 204l. for the engine, which must be paid forthwith, and there were merchants' claims which were also pressing, and ought to be at once settled.)

Mr. TURNER enquired the cost of the engine?

The CHAIRMAN said 500l., and that they could not at the time of the purchase have got a similar one for three times that amount.

Mr. BYRON asked the chairman if he could inform the meeting what was likely to be the estimate of raisings for the next three months?

The CHAIRMAN would not pretend to say, although he was very sanguine as to success. Mr. BYRON: Will it exceed that of the last three months?

The CHAIRMAN said he should certainly think so; they would also have an increase in the sale of the barites, and would obtain a better price for it.

Mr. MINTON observed that 5l. 15s. appeared to be the only sum obtained for the sale of this article.—The CHAIRMAN said there had been previous sales.

Mr. TURNER asked if it would not be advisable for the company to prepare it for themselves, instead of disposing of it in its present state?

The CHAIRMAN had no doubt it would be more advantageous to the company to do so; it could be worked up for about 12s. a ton, and would fetch about 27. 10s. per ton in the market; it was an article that was being much sought after.

Mr. STEPHEN said it would fetch 4l. a ton.

Mr. TURNER thought it would be worth while to put up a mill, and grind the article themselves.

Mr. STEPHEN was of opinion that if they could get only 30s. a ton it would pay them better than preparing it at the mine. It was an article, as the chairman had observed, that was much sought after, and was extensively used in potteries, glassworks, and white lead manufactures.

In reply to a shareholder, the CHAIRMAN said he had no doubt they could raise some hundreds of tons a month, and find a ready market for it.

Mr. STEPHEN said it was used extensively in America, as well as in this country, in white lead manufactures.

The CHAIRMAN assured the meeting that the committee were quite alive to the value of this article, as well as to the necessity of exercising the most rigid economy. Mr. Stainsby had voluntarily reduced his salary from eight guineas to five guineas a month, and whenever retrenchment could be effected it would not be lost sight of. Mr. Thomas Watson, who was prevented from attending the meeting through indisposition, had worked night and day for the company, and scarcely a day passed that he was not in communication with the agents of the mine; nothing occupied his at-

tention so much as this property, and he was satisfied that he would do all that industry, perseverance, and talent could accomplish: for he felt more than a common interest in the management of the property, arising probably from his early connection with the concern, and a feeling that his reputation was somewhat involved in its judicious conduct and ultimate success.

A discussion then ensued as to the amount of call.

Mr. MINTON said it was desirable in these times that they should do with as little money as possible, and thought a call of 6d. a share would meet their expenses for the next three months.

The CHAIRMAN fully sympathized with the state of the mining interest generally with respect to calls; at the same time they must not shut their eyes to the fact, that they required a certain amount of vigour if they were to work the mine with success.

Mr. MINTON said he would most willingly respond to a call of 1s. per share, but he thought the shareholders generally would be in a better humour to pay a call of 6d.

The CHAIRMAN said, the committee felt that their exertions had been very much crippled for the want of funds. He was himself a very large shareholder, and the call would, of course, affect him, but he had consulted most of the large shareholders, and they were of opinion a call of 1s. a share was the very least that ought to be made; of course, there could be no individual benefit resulting from a good balance, as the money was paid over to the bankers as soon as it was received. It was far better, he thought, to pay off all liabilities, and have a clean balance-sheet, with a surplus in hand, than to be making frequent calls: the commercial value of the property would be much improved if they had liberal support.

After some further discussion, it was resolved that a call of 1s. per share be made, payable forthwith.

Messrs. Cooke, Thomas Watson, Northern, Stainsby, and Seward, were re-elected the committee of management.

Mr. TURNER proposed a special vote of thanks to Mr. Thomas Watson for his zeal and exertions on behalf of the company.—A similar compliment was also paid to Mr. Northern; and a vote of thanks to the chairman and committee terminated the proceedings.

THE DEVON TIN MINES (DARTMOOR, DEVON).

At the general meeting of shareholders of the Devon Tin Mines, held at the offices, 26, New Bridge-street, the minutes of the last shareholders' meeting, and of the subsequent meetings of the committee, were read and confirmed.

The accounts showed that the cash capital paid up had been 4068l., and that the expenditure, from the commencement of the enterprise in 1853, had amounted to 3221l. 9s.: leaving a balance in favour of the mines, up to the 30th of November last, of 446l. 11s.

The following report of Capt. William Thomas (of the Arundell Copper Mine), the superintendent of the Devon Tin Mines, and of Capt. James Thomas, the manager at the Tin Mines, was submitted to the meeting:—

The new engine-shaft is sunk to the 26 fm. level, and for 10 fms. below the 15 fm. level the shaft has been sunk through good tin ground. We shall now commence to drive, and stop the ground now laid open, when we hope to make returns of tin ore in three months, if the ground laid open turns out as we expect it will. The 15 fm. level is driven east into hard ground, but the lode is large and tinny; by stopping the bottom and back, and carrying a high stope, this, we think, will pay well for working; it will depend much on the number of hands for the quantity of tin that may be raised in future. We can assure you that the mine never looked so well as at the present time; the lode is 18 or 20 inches wide, and the strata equal to any we have had at the mine; and from the best information we can get, there is not a stronger lode in Dartmoor than this—even in mines that have made large returns of tin. We have a very good six-head stamping mill, which will stamp 200 sacks per week, and have now ready for sale about 25 cwt. of black tin.—WM. THOMAS; JAMES THOMAS, manager of the Devon Tin Mines.

In consequence of the non-payment of 10s. per share, to which a certain number of the shares were originally liable, 275 were declared to be forfeited, and added to the reserved shares of the enterprise.

The committee were empowered to issue either the whole or any portion of the reserved shares of the enterprise at not less than 1l. per share, the amount receivable to be added to the capital.

From the want of dwellings for the miners, and the difficulty of carrying on works on Dartmoor during the winter months, it was considered for the interest of the enterprise that the operations at the mines, up to the 31st day of March, 1855, should be confined to the North Mine, the sinking of the engine-shaft. The driving of the 26 fm. level was, however, to be continued with all possible dispatch.

The present committee were re-elected, with the addition of Alexander Greig, Esq. The tin dressers were directed to be sold, with the addition of Alexander Greig, Esq.

The next general meeting of shareholders was appointed to be held on Wednesday, the 31st inst.

CROW HILL MINING COMPANY.

A meeting of shareholders was held on Tuesday, at Mr. W. C. Foulkes's offices, No. 58, Old Broad-street.

Mr. FOULKES (the secretary) read the notice convening the meeting, and the minutes of the last, which were unanimously confirmed. A statement of accounts was then exhibited, showing a balance against the mine of 462l. 12s. 11d.; and, in consequence of the alteration in the company, the whole of the plant and machinery was valued, which, after the payment of the rent of the mine, and water rent for six months, left balance against shareholders, 71l. 1s. 5d.

Mr. STREET observed that, if it had not been for the payment of the rent, the balance would be in favour of the mine.

A SHAREHOLDER observed that they would have had to pay the rent whether they abandoned the mine or not.

Mr. STREET: Certainly. But it would be an advantage to the new company, as rent to the amount of 235l. was settled, and which they would only have to pay by degrees.

A SHAREHOLDER observed that the outgoing shareholders would have to pay about 3d. per share to discharge the existing liabilities.

The CHAIRMAN said, as the rent was paid in advance, it was not considered necessary to call upon them for so small an amount.

A SHAREHOLDER said the next question was, What was to be done to carry out the works?—Mr. FOULKES remarked that Capt. Puckey had informed them 500l. would be sufficient to prove the lode 10 fms. deeper, and the actual liabilities were about 400l.

Mr. GOODWIN wished to know how long that would carry them on?

Mr. FOULKES thought for the three months, January, February, and March.

Mr. STREET said they had got enough in the bankers' hands to pay the Dec. cost.

The following resolutions were then unanimously passed:—"That the accounts to the 31st Dec. be received, and adopted.—That a call of 5s. per share be now made, payable at the offices of the company.—That, inasmuch as the balance against the shareholders to the 31st Dec. is only 71l. 1s. 5d., the retiring shareholders shall not be called upon to pay any portion of the same.—That the retiring shareholders be requested to give up all certificates of registration of their respective shares."

A SHAREHOLDER suggested that they had better have weekly reports from the mine, and that the meetings should be called quarterly.

Mr. FOULKES promised to attend to the suggestion, and the proceedings terminated with a vote of thanks to the chairman.

GREAT TREGUNE CONSOLS MINING COMPANY.

At a general meeting of shareholders, held at the offices of the company, on Thursday, January 16, the following statement of accounts and reports were adopted:—

Balance at bankers on July 27, 1854.....	£509 5 0
Cash since received by sale of shares.....	762 0 0=£1271 5 0
Amount expended since last meeting.....	1100 12 2
Balance at bankers.....	£ 170 12 0
Shares allotted and receivable.....	238 0 0
Total.....	£ 408 12 10

DIRECTOR'S REPORT.

In presenting to the shareholders their present report, the directors consider that they have many reasons to commend the course of a very gratifying character.

It will be remembered that at the period of the last general meeting, evidences had been just obtained that the lodes in this estate, which were originally assumed to be tin lodes, were, in fact, copper lodes, which would increase the ultimate value of the property, although it would, in some degree, tax both the patience and the pockets of the shareholders to a greater extent, by requiring the attainment of deeper levels before the riches of the mine could be obtained.

It will now be seen by Capt. Spargo's report, as also by the different samples of ores which now lie upon the table, and which have, from time to time, been received from the mine, that the lodes have been made both in quantity and quality of the mineral ground, the last specimen from the mine being solid copper, of a rich quality, and the report of Capt. Spargo stating that there is now a leader, of 8 in., of good saving work on one side of the lode, whilst ore is discernible coming in at the other wall, are indications which give promise of the lode being ore throughout at no great depth from the present bottom of the shaft, and which may be, and is now, very near, in the opinion of the working miners.

The directors are, therefore, justified in indulging very sanguine expectations as to the results of their exertions and outlay to this period.

As regards the finances of the mine, the directors beg to call to the remembrance of the shareholders that, prior to the last meeting, it was intended to create 1000 additional shares, to be sold at 2l. 10s. per share, in order to extend their capital by the sum of 2000l.; it was, however, at the referred-to meeting (in July) considered to be in accordance with the constitution of the mine that the shares should be sold at the par price of 1l., and it was, therefore, resolved that 2000 shares should be created, with the usual preference of purchase by existing shareholders; that 1000 should be immediately offered for sale at 1l., and the remainder held in reserve until required. The directors have now to announce that the whole of the first thousand have been subscribed for, whilst they have applications already for a portion of the second thousand; they, therefore, propose immediately to receive applications for the remaining shares, either from the present shareholders, or from any other parties of whom they approve, it being desirable that funds should be in hand, to prosecute the mining operations—presently yet vigorously, and in conformity with the ready money principles of the company.

It might, perhaps, be gratifying to the shareholders, as being evidence of the estimate formed in the country of the prospects of the adventure, to learn that applications are now being from the directors from the miners upon the property to retain for them, and to apportion to them from time to time, shares in the mine, in part payment of their wages. It is the desire of the directors to encourage industry and care, by setting apart a small number of shares, so that the laudable wish of the miners could be complied with, by supplying them with shares, without their being taxed with such premiums which, it is fairly presumable, may be obtained at no distant period.

The directors have to inform the shareholders that Mr. Barclay, one of their former body, has tendered his resignation, in consequence of which they thought it desirable in the interest of the shareholders to invite the co-operation of Mr. G. W. Scott, who has kindly accepted the office of director, a confirmation of whose appointment is now proposed to the shareholders, in conformity with the 11th rule of the company, where-in provision is made for such change in the direction.

CAPT. SPARGO'S REPORT.

Great Tregune Consols, Jan. 16.—When I attended your last meeting, I informed you that the lode in Hobler's shaft was much improved in copper, and that it was then occasionally producing good stones of ore, and it was my impression that it would continue to increase in copper as we went down, as the south branches were gradually falling into the lode, bringing with them a softer channel of ground. I am now with pleasure, and with the greatest confidence, inform you that all I stated to you at the meeting is in every shape verified. I was underground at Hobler's shaft last evening, and was much delighted at the present appearance of the lode: we all think (both men and agents) that before we reach the next 10 fathoms we shall be in possession of a rich course of copper, for the following reason:—6 fathoms above us we intersected this lode by the perpendicular shaft, where we found the lode composed of fluor-spar, felspar, with very rich gossan, and occasionally spotted with copper, and the lode from 1 foot 6 inches to 2 feet wide, and the ground much harder than at present; and from that point to the present depth the lode has gradually improved every foot we have sunk. The lode at present in bottom of shaft is from 3 to 4 ft. wide, producing some very rich stones of copper, and on the footwall of the lode there are 5 in. of good saving work, of excellent quality ore. We have, for the last 3 feet sinking, discovered ore on the south part, as well as the north, which evidently shows that, at a deeper point, the whole of the lode will far exceed that of the north.—CARKEE'S SHAFT: We have completed our shaft in the 30 fm. level, and set the following bargains yesterday—viz., a penthouse, to put in pit, collar, and to hang tackle, at per bargain 54.; also 5 fms. to sink under the 30, at 15l. per fathom; here the lode is still from 6 to 7 feet wide, of a most promising character. The lode is leaving the gossan and fluor-spar, and felspar predominates, and occasionally some good stones of copper. The ground is changed from 18l. per fathom to 12l. All our machinery at this shaft is in excellent condition, and our wheel is of sufficient power to put us from 60 to 70 fathoms deep. We have erected our account-house, smith's shop, and material house, together with a good carpenter's shop, which was greatly wanted. I flatter myself that, by the next quarterly meeting, I shall have to state again that this report will be verified equal to my last.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—We have commenced sinking Field's engine-shaft under the 130 fm. level; the lode in this level, east of this shaft, is worth for copper ore 40l. per fm. The lode in No. 1 winze sinking under the 120, east of this shaft, is worth for copper ore 100l. per fm.; the lode in No. 2 winze, sinking under this level, east of this shaft, is worth for copper ore 20l. per fm.; the south lode in this level, east of said shaft, is worth for copper ore 4l. per fm. No change to notice in any other of the pitwork operations since the last report. Our tributaries are 50 men, at the average tribute of 3s. 1d. in 11. We expect the main beam of the new engine, with some other parts, will be delivered on the mine this week.—M. WAITE: Jan. 15.

ALTARNUN CONSOLS.—We have discovered two other branches south of the lode in the west end in the 20, each producing tin, and bearing towards the lode, which is about 1 ft. wide, and also producing some good stones of tin. The lode in the rise, east of engine-shaft, is looking better, and inclined to make larger. The lode in the shaft is without alteration.—R. REYNOLDS: Jan. 17.

BEDFORD CONSOLS.—In the adit level the lode is 6 feet wide, composed of spar, peach, gossan, and stones of ore. In the whim-shaft the lode is 6 ft. wide, composed of gossan, quartz, and peach, with black ore intermixed.—H. HORWILL: Jan. 17.

BEDFORD UNITED.—The lode in the 130 east is 2 feet wide, producing stones of ore. In the 115 east the lode is 3 feet wide, producing 6 tons of ore per fathom. In this level west the lode is 18 in. wide, producing stones of ore. Paul's stope, in the back of this level, are worth 4 tons of ore per fathom. Jeffery's stope, are worth 8 tons per fathom. Jackson's stope, in the 103, are worth 8 tons of ore per fathom. There has been no lode taken down in any other part of the mine since last report.—JAMES PHILLIPS: Jan. 17.

BIRCH ALLER.—In the 50 fm. level, north of Fry's shaft (yesterday), we intersected a good branch of ore coming from the eastern side, and which I think to be the same branch as we discovered in cutting the plat to the south of Fry's shaft; we have broken a good pile of work from there, which will make, I think, about 8 cwt. of lead, but in the end we met with a slide which has disordered the lode, and we have not yet broken through it, to prove its value to the north of the slide; but the lode, so far as seen, is altered very considerably, as it is now of a decomposed or muddy nature, which is generally considered the best for a productive lead mine; the lode in the south end, same level, is without any material change since my last report. The 40 fm. level, south of Fry's shaft, continues to produce occasionally good stones of lead, with mundie, barites, and spots of antimony, in a most congenial killas. We shall sample the lead on Monday, computed 8 tons. The engine, and all the machinery on the mine, is working very well.—G. R. BONES: Jan. 13.

BLACK DOWN.—We have now cut through the lode in the deep adit level, which is 20 feet wide, composed of gossan, capel, mundie, and spar, with occasional good floors of yellow copper ore. It is all that could be looked for, and more than could be expected at this shallow depth. We also uncovered the trial shaft, which is now dry, and have commenced to drive east on the course of the lode, as we shall be approaching towards the Oakhampton Consols north and south lodes, or cross-course, and we shall also be proving the lode under the summit of the hill, which will be a guide for future operations.—A. BRAY: Jan. 18.

BOILING WELL.—Next week we hope to commence sinking the engine-shaft below the 50, by 12 men. We have not cut through the lode in the 50, but have driven about 2 fms. into it; I have put the men to drive on the south part of the lode, which will fall in with the north part going east. I think this the best way, as cutting further into the lode will occupy so much time, as it is hard and wet. The eastern end in the 40 is still producing 1½ ton of good ore per fm., leaving good tribute ground. The eastern end in the 30, just over the 40 end, on the same lode, is looking promising, producing about a ton of ore per fm. We still continue to drive east in the 40, on north lode, which is unproductive; but by driving this end as far east as east whim shaft, we can sink this shaft to the 40 dry. This shaft will be the principal drawing one in a little while, should the ore continue to make east. At present all the tribute pitches are looking fair, the men are getting good wages, and I hope the next sampling will be the best we have ever had in Boiling Well.—G. REYNOLDS.

BOLENOW.—The lode in the 50 fathom level, driving east, is 3 feet wide, with a promising appearance. The 43 east, and 20 west, is without alteration. In the adit level west the lode is 2 feet wide, gossan, priam, and spar.—W. ROBERTS: Jan. 13.

BRONFLOYD.—The lode is getting richer every day; both to-day and yesterday we have had very good ore in lumps of from 15 lbs. to 30 lbs. solid. We have driven 2 fms. through the lode without seeing the north wall, but it appears to be very near us now. The only thing we want at the mine is a shaft from surface to ventilate the ground.—J. JONES: Jan. 15.

Yesterday we got the north wall of the lode by our cross-cut; at this point the lode contains a little spar, and a good mixture of ore. I intend to drive a few feet further, and shall then be able to ascertain the exact bearing; so far as I now see, it runs 20° south of west. Afterwards, we shall turn and drive upon the course of the lode, towards the old workings.—J. JONES: Jan. 17.

BRYNTAIL.—The 10 fm. level driving east of the shaft, on the new lode, contains a branch of ore, 6 in. wide, towards the end, but is not so good in the back. The rise on the lode above the cross-cut contains a good branch of ore; to-day a communication has been effected with the stope from the western end of the shaft; I shall now put the men to sink the shaft under the 10 on a good branch of ore. The stope west of the shaft, above the 10, is still producing a fair quantity of ore.—J. ROACH: Jan. 17.

CAEGWIAN.—The extreme wet weather here is retarding our building operations, although I hope to have the house for the calmer roofed in by the

CLOWANCE WOOD.—We are driving the adit level west of Slater's shaft, on Slater's lode—lode 6 in. wide, composed of quartz, munda, and spots of copper ore. —E. CHAMBERLAIN: Jan. 15.

CUBERT UNITED.—At Trebilcock, the engine-shaft is down for a 65 ft. level, and the shaftmen are now driving both east and west; the lode in each of these ends is from 15 to 18 inches wide, composed of quartz, prill, flookan, white iron, and some good spots of lead, showing a very healthy appearance. The lode in the 55 ft. level, west end, is 10 inches wide, producing 2 cwt. of lead per fathom; the lode in the back of the 45 ft. level is worth 3 cwt. of lead per fathom; the lode in the back of the 45 ft. level is worth 3 cwt. of lead per fathom; the lode in the back of the 45 ft. level is worth 3 cwt. of lead per fathom. The lode in the 50, north end, is 7 in. wide, worth 2 cwt. of lead per fathom; the lode in the back of this level is worth 7 cwt. of lead per fathom. The lode in the sump winze is 2 ft. wide, worth 11 cwt. of lead per fathom. The lode in the back of the 50, north of the sump winze, are worth 3 cwt. of lead per fathom; the south lode is worth about 2½ cwt. of lead per fathom. The lode in the 40, north end, is 8 in. wide, composed of quartz, prill, flookan, and munda; the lode in the 40, south end, is about 12 in. wide, composed of quartz, prill, flookan, munda, and spots of lead. We have on the mine, dressed and undressed, from 4 to 5 tons of good ore. —J. TAYLOR: Jan. 15.

CWM DAREN.—The plunger-lift continues to work as well as I could desire; and we are pumping and crushing upon half the water used here before. The shaftmen are engaged fixing ladders, putting in solar over shaft, hanging tackle, &c. The lode in the back of the 20, east of Morgan's winze, the lode being carried in 7 feet wide, producing some good lead and copper ore. I have to-day set the lode in the bottom of the 20, east of the said winze, to four men; the lode is 7 ft. wide, paying for lead and copper ore. In the lode in the 10 west the lode is 3 ft. wide, producing ½ ton of lead and copper per fm. —A. WATKINS: Jan. 15.

DEVON BULLER.—Since last report we have completed the foundation of the engine-house, and also the new road for drawing the materials on the mine. I am sorry to say the reasons cannot go on with the buildings, in consequence of the frost. —W. NEILL: Jan. 15.

DEVON UNITED.—Owing to the scarcity of surface water, we are obliged to suspend the sinking at the engine-shaft for the present. We have, therefore, increased our hands in the deep adit level, to intersect the great copper lode with all speed, where we have a man and a wheelbarrow, and as the ground appears to be changing for the better, I trust we shall now make satisfactory progress in cutting the great north lode. —A. BRAY: Jan. 15.

DRAKE WALLS.—The branches in the 60 ft. level, west of Matthew's shaft, are not so good as we expected to find them west of the large cross-course, being very foul with wolfram, and not rich for tin. The lode in the back of this level are producing coarse work for tin. The branches in the 70 ft. level of said shaft are still small and poor. The lode in the back of this level are producing saving work. The branches in the 60 ft. level, east of said shaft, are producing coarse work. The lode in the back of this level are producing good saving work. The branches in the 50 ft. level, east of said shaft, are producing saving work. The lode in the back of this level are producing coarse work for tin. The branches in the footway shaft, sinking below the 70 ft. level, are not so good as when last reported. The lode in the back of the 70 ft. level, east of footway shaft, are producing good saving work. The lode in the back of the 70 ft. level, west of said shaft, are producing coarse work for tin. The branches in the winze sinking below the 60 ft. level, west of Brenton's shaft, are producing saving work for tin. We expect in a few days we shall have cleared out Brenton's shaft to the 70 ft. level, where we intend to fit a plunger-lift as soon as possible. If the weather continues as it now is, we shall soon be frozen up. The poor children can hardly work at all, and the little water we had is nearly all gone since the dry weather set in. —H. SKELTON: Jan. 15.

DYFNGW.—The engine-shaft has been sunk during the past month 1 fathom 3 feet deeper, and we have commenced a cross-cut to the lode, and have sunk for a 60 fathom level. The winze has been sunk 1 in. 3 ft. below the 50 during the month, and since measuring down it has been found that the lode continues to improve as we descend. In taking down the lode on Saturday the men cut into stronger body of ore than they have yet met with; we were, therefore, forced to abandon it till the 60 cross-cut intersects the lode; when the latter is in the lode, I expect one week's work will sink through. I went down on Saturday, before withdrawing the men, and certainly the lode is the richest I have yet seen in the mine; the bottom is worth 5 tons to the fathom. Till the 60 cross-cut intersects the lode we cannot do much good in the winze; it has, however, shown what we may expect in the 60. The 50 west has been driven 2 fathoms 5 feet, and has produced 30 cwt. to the fathom. In the back of the 50 west 8 fms. of ore ground has been produced, producing about 25 cwt. to the fathom. In the other stopes in the 40 ft. level, 5 fms. 3 ft. of ore ground have been stopped, worth 20 cwt. to the fathom. In the 50, east of engine-shaft, 7 fms. 1 ft. of ore ground has been stopped, worth 20 cwt. to the fathom; and east of this 7 fms. 1 ft. of ore ground has been stopped, worth 12 cwt. per fm. In the 40 west the winze has been sunk 34 fms. deeper; it is now deep enough from the bottom; 4 ft. 6 in. was driven east in ore ground, but not rich enough to put a value on. In the 40 west 24 fms. have been stopped, worth 10 cwt. to the fathom. We have shipped by the *Hope* 40 tons of ore, which, with the cargo per *Jane*, not yet sailed, makes 72 tons of ore now in the *Dovey*. —EDWARD DAVIES.

EAGLEBROOK.—The west engine-shaft is down to its required depth. The lode in the bottom of the shaft is much of the same character as when last reported. The stopes in the bottom of the shaft are now being worked; we intend to drive a fathom or two both east and west before we cease and divide the shaft, to get the kibble down, to draw from bottom. The cross-cut, driving south towards the middle shaft, is now extended 3 fms. 2 ft., and has intersected a small branch of munda and blende; the ground is still very hard, consequently our progress is slow. The deep adit level, east of old engine-shaft, is now extended 12 fms. 3 ft.; the lode in the end is 6 ft. wide, and of a promising appearance, composed chiefly of gossan, white carbonate of lead, and porphyry, with occasional rich stones of copper ore. I should recommend to sink the old engine-shaft 10 fathoms below the deep adit level, and to drive west to communicate with the 10, east of west engine-shaft, and also to drive east, where there cannot be a doubt, there are good deposits of lead under this rich gossan and carbonate of lead, which we have driven through in the deep adit, east of this shaft. The sawyers are now engaged in cutting timber, to divide and ease the engine-shaft. All other operations are going on well. —H. TAYLOR: Jan. 15.

EAST WHEAL GEORGE.—The lode in the 44 ft. level, west of shaft, is large, composed principally of capel, with spots of ore, but nothing to value—the ground in this end is very hard; the lode in this level east is from 2 to 3 ft. wide, composed of capel, spar, and munda; I expected to have intersected the cross-course in this level before this, but I think it must have taken a more perpendicular direction below the 23. The ground at the shaft is composed of capel, intermixed with kyllas. Water is issuing very strong from the north side of the shaft; whether it is from a north branch or not I cannot say at present, but this will be ascertained in the course of sinking. The lode is yielding the same quantity of ore as for some time past.

EAST WHEAL RUSSELL.—The light blue kyllas I reported to you on the 4th inst. is still heaving in fast from the north in Hiltchins's shaft, carrying the lode south; we are getting on sinking speedily. The lode in the 55 is just the same as last reported, not without ore; there is a light elvan showing on the south wall the last few cores working. The end is now about 20 fms. west of Homersham's shaft. We are pushing on Homersham's shaft with all possible speed. Our machinery is all working well. —W. METHERELL: Jan. 15.

ESGAR MWN.—Since last report, we have holed from the 15 ft. level stopes under the Hospital to the 20, by which we are able to throw the ore stuff down to the 20, instead of landing it up to the 15. We cut a good branch of ore in the fore-breach, but we did not cut that branch in the winze above. The stopes north of the rise, in the 25, will yield 18 cwt. of ore per fathom. The stopes in the 15, east of south winze, are now being worked; the lode in this level is worth 17 cwt. of ore per fathom; the south winze will yield 18 cwt. of ore per fathom. The stopes above the north winze, south part of the lode, will yield 12 cwt. of ore per fathom. The mine all through is looking well, and the machinery is in good order. We sold at the mine, on the 15th inst., 30 tons of ore, to Messrs. Newton, Keates, and Co., at 12½ s. 6d. per ton.

FEE DONALD.—The end driving west on the Antimony lode is looking very promising, worth 15 cwt. of lead ore per fm.; it is 5 fms. between the end and the surface, and will soon get into high ground by driving west under the hill. In the winze sinking under this level the branch of lead is not so large as it has been, now worth 18 cwt. of lead ore per fm. The end driving west on the lode, south of Antimony lode, is without alteration since last week. In going east on this lode we are saving some fine stones of lead—say, from 3 to 5 cwt. of lead ore per fm. The end driving west, on the Smidley lode, is producing some saving work. I calculate about three months hence for getting under the ore ground. —J. MURRAY: Jan. 15.

GAWTON UNITED.—In the 35 west we are carrying about 3 ft. of the south part of the lode, which is composed of white prill, spar, munda, and good stones of ore; the ground by the side is good kyllas, with branches of ore running through it, and dropping into the lode. We have suspended the eastern level for the present, and placed all the men in the western end, where the appearance of the lode is very promising. —H. HOSWELL; J. MITCHELL: Jan. 15.

GARREG.—We have cut into a fine lode in the adit level driving west; the lode is now 11 in. wide of solid lead ore, and will produce a large quantity of lead per fm. I have never seen anything like this before in this part, and I think I may venture to say that this mine will be equal to any in the neighbourhood, if it turns out as well as it at present appears. —W. KENNEDY: Jan. 15.

GREAT CAMBRIAN MINING AND QUARRYING COMPANY.—Capt. Hogan, the manager of the mines, in his report this week says:—“In the stopes, west of Owen's winze, the lode is 2 ft. wide, and produces about 10 cwt. of blende to the fm. In the stopes, east of Owen's winze, the lode is 4 ft. wide, impregnated with blende and copper ore all through. The lode in No. 6 lode is about the same as last reported. As soon as convenient, I shall recommend you to drive the west end on the course of the lode, as this will prove 15 or 15 fms. of high ground in the western part of the mine, so that I shall have it in proper form for working. The deep adit on No. 6 lode is 4 ft. wide, and has a very promising appearance, and occasionally stones of lead ore. Judging from the present prospects of the lode, we may reasonably expect it to make out in a short distance. The number of men employed on the mine during the last week is as follows:—14 miners, four underground labourers, on surface one man and three boys picking, three spallers, two men washing, and three boys jiggling, and one boy attending the round biddles, one smith, and one carpenter—total, 32.”

GREAT HOLMBUSH CONSOLS.—This mine is held under a grant from the Duchy of Cornwall, at 1-15th dues, and is situated in the parish of Stoke Climsland, in the county of Cornwall, on the west, and adjoining Holmbush Mine within a short distance of their workings, having the whole of the Holmbush lodes running through this set; and it is considered by practical men of the neighbourhood that the Great Sheba lode runs through this set also, and being on the north of the Callington and Resemore Lead Mines, it has the whole of these lodes, which are north and south courses, crossing the copper lode. Since we commenced operations, about five months ago, we have opened seven lodes, of a very promising character—two silver-lead lodes, and five copper lodes. One of the lead lodes is 6 ft. wide, underlying about 18 in. in a fathom, composed of flookan, lead spar, and rich gossan, with spots of lead in it. The other lead lode is 18 in. wide, composed of flookan, spar, and gossan. Four of the copper lodes are from 3½ to 5 ft. wide, composed of flookan, spar, munda, and gossan, with particles of copper. The other copper lode is 20 ft. wide, underlying north, and is an extraordinarily fine one, composed of flookan, spar, munda, and gossan, with spots of copper. This I believe to be the Holmbush lode, which has produced thousands of tons of blende, of this set, and of blende to the fm. It is considered by competent judges, who have seen the lodes which are laid open, to be a very valuable piece of mining property, from the situation it is in, being in a direct line between Holmbush and Wheal Phoenix, which I consider to be the same lode; and from the very favourable indications which they show here, there is every reason to expect great quantities of copper from this extensive piece of ground. —ARTHUR WATKINS: Jan. 15.

GREAT SORTRIDGE CONSOLS.—We have commenced the building of our engine-house, but, unfortunately, the frost having set in has impeded our progress. There are no other operations being proceeded with that I can report on. —THOMAS METHERELL: Jan. 15.

GREAT SHEBA CONSOLS.—In the 40 ft. level, east, driving west of new engine-shaft, the ground is rather harder for progress; the lode is without important alteration. In the same level cross-cut, driving north from old engine-shaft, the ground is favourable for driving. In the pitch in the back of the same level, east of the new engine-shaft, the lode is worth for copper 2 tons of ore per fathom. In the 30 ft. level, east, driving west of new engine-shaft, the ground is harder for progress; the lode is composed of capel, munda, and lead, with occasional stones of ore, but not enough to value. In the pitch in the bottom of the same level the lode is not looking so well as it did; its present worth for copper is about 3 tons of ore per fm. In the pitch in the bottom of the 20 ft. level the lode is worth for copper 4 tons per fathom. In the pitch in the back of the same level, west of new engine-shaft, the lode is worth for copper from 3 to 4 tons per fathom. In the pitch in the back of the same level, east of new engine-shaft, the lode is worth for copper 2 tons per fm. We are getting on our shaft work, and other points of operations, as fast as possible. Our next parcel of ore, to be sampled on Friday, the 26th instant, will be from 160 to 165 tons. —S. YELLAND: Jan. 17.

GREAT SOUTH TOLGUS.—The lode in the 80 ft. level is 1 foot wide, worth 8 ft. per fm.; we have driven about 4 fms. on the lode at this point, which has produced about 4 tons of ore. In the 70 ft. level the lode is 1½ ft. wide, unproductive, and letting out much water. The lode in the stopes is 2½ ft. wide, worth 12½ ft. per fm. All the other parts of the mine are without any alteration whatever since last report. —J. DAW: Jan. 15.

GREAT WHEAL BADDERN.—We have intersected the tin lode in the new shaft, which is composed of capel, munda, and a little tin, ground still very hard, but I hope as soon as we get through this lode, which will not take long, that it will be better. The lode in the 45 west is 1½ ft. wide, producing good stones of lead. The lode in the 40 east is 2 feet wide, composed of lead and spar. The lode in the 30 east is 1 foot wide, with a good leader of lead on the foot-wall. The lode in the 30 and 40 west, and also in Kenworthy's shaft, are looking much the same as last reported. The stopes and pitches are looking well, and the dressing department is going on satisfactorily. —J. ROBERTS: Jan. 16.

GREAT WHEAL VOI.—The draining of the main works is proceeding steadily. The water is now down 10 fathoms below the 35 under the adit, and bearer hoies are being cut for the second drop. The plates of the steam capstan are delivered on the mine, and the engineers are engaged fixing them. The work for Trevelyan's 22-in. winch is not yet received. The masons are making good progress with the engine-house for Trevelyan's 35-in. cylinder. On Wheal Voi main lode the tribulators are working spiritedly, and the ground is letting as fast as it is laid open. On Gwose lode, the 10, east of Sandbank shaft, is worth 20½ ft. per fm. In the 10 west the lode is worth 9½ ft. per fm. The clearing of the 20 west has been commenced, and good results are expected here. At Metal lode engine-shaft the lode is 2 ft. wide, and is improving in value. At No. 20, the 60, west of the engine-shaft, may be daily expected to open richly. At No. 21, in the 60 east, the lode is good work for tin. At No. 23, the winze in the 50, west of the lode, is of immense value. The stopes in the back of the 50 are worth 50½ ft. per fm. In the bottom of the 40 they are worth 15½ ft. per fm. At No. 25, the new winze in the 50 east lode has improved, now worth 45½.

HAWKMOOT.—In the 30 east the lode is 3 feet wide, composed chiefly of fluor-spar and munda. The stopes in the back of this level are worth from 3 to 4 tons of ore per fathom. In the 20 east the lode is still splitting, producing some good working floors, but not regular. The rise and stopes in the back of this level are still producing good returns of ore, worth 2 tons of ore per fm. The stopes in bottom of the 10, west of shaft, is improved in quality the last week. We have sunk the east shaft 5 ft. below the 30; the lode is 3½ ft. wide, worth 3 tons of ore per fm., and we shall be obliged to suspend this sinking, from the great influx of water, until the water-engine is at work. We hope to complete the wheel-pit walls next week, and commence fixing the wheel. —J. KENNEDY; J. RICHARDS: Jan. 15.

HINGTON DOWN CONSOLS.—The lode in Morris's shaft and Doldge's winze, both sinking below the 75 fathom level, continues in each of much the same character and value as when last reported on. In the end east and west of the same level the lode, although equally large as yet without the hoped-for improvement. In the 65 ft. level the lode continues equal in value to the last estimate. A winze is being sunk in the bottom of this level to communicate with the 75 east, the lode in which is 2 ft. wide, and tolerably productive. South lode: In Hiltchins's shaft the lode maintains its size, and continues to yield very fine stones of ore. In the 55 ft. level west the lode is also turning out good stones of ore, and in the eastern end of this level the lode is looking very promising; an improvement everywhere on this lode may be looked for shortly. The stopes and pitches are without any material alteration. —W. RICHARDS: Jan. 17.

HOPE VALLEY.—The lode in the 47 ft. level, driving south, is 3 feet wide, yielding 6 cwt. of lead ore per fm. The lode in the winze sinking below the 35 fathom level is 1 ft. wide—spar of promising description. The lode in the 35 ft. level, driving south, is 1½ ft. wide, interspersed with lead ore. The tribute department is much as usual. —W. BARRETT: Jan. 15.

KELLY BRAY.—Kelly Bray shaft is sunk deep enough below the 90 for a fork. We have commenced driving a 90 ft. level east; the lode in the end is 3 feet wide, composed of quartz, munda, peach, and good stones of copper ore. We anticipate an improvement in this end shortly. We have suspended the cross-cut north from the 80 east, and again resumed driving east, the lode in the end being small and unproductive at present. The lode in the 70 east is 1½ ft. wide, composed of fluor-spar, quartz, and munda, interspersed with copper ore; there is much water issuing from the lode, which indicates to us a change, we hope for the better. The tribute department is much as usual. We calculate to sample on the 26th of this month about 100 tons of copper ore, of tolerable quality. —T. WOOLCOCK; S. JAMES: Jan. 15.

LAMHEROEE WHEAL MARIA.—The ground in the 50 ft. cross-cut continues without any material alteration. In the 40 ft. level, west of Jesse's shaft, the men are engaged taking down the lode, which has a very promising appearance, composed of munda, capel, and copper intermixed. The 40 east is still driving by the north side; the lode and the ground is much the same as on survey-day. —Jan. 16.

LEEDS TOWN CONSOLS.—The ground in the engine-shaft is much the same as when last reported on. We have been slightly delayed here, in consequence of having had to repair the house lift. In the 30 fathom level west the lode is 2 feet wide, with stones of copper; in the 30 ft. level east the lode is 2½ ft. wide, and not rich; but as the lead which I mentioned in my last is now leaving, we hope to have a good lode for tin again shortly. We are anxiously looking out for the counter-part of the lode in the 20 fathom level; the lode varies in its underlay. It may, therefore, take some further time to reach it; the ground is also harder. In the 16 ft. level south, by the flookan, the ground is much the same as in the 20 fathom level. In the winze sinking below the 20 ft. level we have a good lode for tin; in my next report I hope to be able to give you an estimate of its value per fm. We have come to water in Eley's shaft; we intend endeavouring to drain it by manual labour, till we reach the 10 ft. level; if this can be accomplished, it will cost us less for the present than by setting the flat-rods to work; the lode in this shaft is improving. With regard to the little stamping engine lately purchased, I beg to say that if the matter were left to me, I would not erect her for stamping purposes; she might do for a winding engine, but for stamping purposes she would not do the work we have in waiting for her; indeed, if she be erected, she shall be almost as much in want of stamping power as before. The opinions as to the number of heads she will work vary from 18 to 24; if she were equal to the latter number, such are our prospects that we could supply her from Eley's shaft alone. I would also suggest to you, that should this stamping engine be erected you will have to attach a large lift to your pumping-engine, to draw the water for dressing the tin; the burthen thus placed on your engine would be equal to what would be caused by sinking 30 fathoms deeper. During the past month we have sunk and driven as follows:—The engine-shaft, 1 fm. 3 ft. 6 in. The 30 ft. level, 3 fms. 0 ft. 6 in. The 20 ft. level, 3 fms. 2 ft. 3 in. The 10 ft. level, 1 ft. 0 in. The 20, by the flookan, 8 fms. 3 ft. 8 in.; the 10, by the same, 5 fms. 1 ft.; shaft east of flookan 1 ft. The new winze in the bottom of the 20 east, 3 ft. Eley's shaft, 6 fms. The 20 east, on Gooch's lode, 3 fms. 4 ft. 1 in.; ditto west, 2 fms. 0 ft. 9 in. The following is our setting list for January:—The engine-shaft to sink below the 30, by eight men, 2 fms. or the month, at 15½ ft. per fm. The 30 west to drive by four men, 3 fms. or the month, at 40s. per fm.; the 30 east, to drive by four men, 3 fms. or the month, at 60s. per fm. The 10 to drive south, by the flookan, to two men and two boys, 1 fm. or out the lode, at 60s. per fm. The 20 ditto, to four men and two boys, 1 fm. or out the lode, at 60s. per fm. Eley's shaft, to sink below the adit level, east or west, by the shaft ground of flookan to sink below the adit, by four men, 3 fms. or the month, at 50s. per fm. —P. FASOR: Jan. 16.

LEWIS.—The south lode in the 100 ft. level, east from tin shaft, is 2 feet wide, worth 15½ ft. per fm.; the north lode in this level is split into branches, and in disordered ground, producing low price stamping work. From the appearance of the level above we have reason to expect an improvement shortly. The stopes are progressing with the pitwork, and hope to have the same completed to the 70 about the end of the present month. —M. REED: Jan. 15.

LOVEDEN UNITED.—The lode in the 10 ft. level, east of engine-shaft, is 3 feet wide, containing but little ore at present; the stopes in the back of this level, west of winze, are producing 8 cwt. of ore per fm. The lode in Pen-y-bank shaft is 4 feet wide, yielding good stones of lead ore, but quite as good as it has been since we commenced sinking under this level: the 10 ft. level, west of this shaft, is in a lode 3 ft. wide, yielding about 8 cwt. of ore per fm. Eley's shaft, in the back of this level, east of the shaft, are producing 30 cwt. of ore per fm. We sampled 20 tons of lead yesterday, and have sent to the different smelters a sample of the same; you will receive the tenders at your office on or about the 26th inst. —S. TREVELYAN: Jan. 15.

LYDFORD CONSOLS.—Richard's engine-shaft is sinking very satisfactorily, the lode in which is 6 ft. wide, and being composed of flookan, munda, quartz, and some lead ore, is a very promising one. We intend to get up the shafts this week. All other necessary works are proceeding as fast as possible. —J. RICHARDS: Jan. 17.

MICHELL.—I have been down to-day, and examined the workings of this mine. The south end in the 20 ft. level is without alteration since my last report, the lode being about the same width, producing a little lead. The pitch in the back of this level is producing good lead; the lead will average 5 in. wide, in a soft fine gossan and clay. The water is very strong; I have stopped the men from drawing the water to-day, so that we shall suspend our workings until we get the engine to work; I expect to have it at work in a fortnight, the weather is favourable. We have got the engine-house and boiler-house nearly up, and expect to have them covered in a few days. —W. RAMSEY: Jan. 17.

MOLLAND.—In the winze sinking below the 62 the lode is at present poor and unproductive, being still in an unsettled state, occasioned by the floor we cut last week. The stopes in the back of the 52 east are worth about 10½ ft. per fm. The stopes in the back of the 42 east are worth about 18½ ft. per fm.; the ground here would pay very well if we were to employ two more men to stopes it; the pitch in the back of this level has improved during the past week, and the men are getting fair wages. In the winze sinking below the adit, in the eastern hill, the lode is still split into several branches, producing occasional stones of ore; the water has increased, consequently I fear we shall not be able to sink much deeper unless we employ a boy or a man more to draw water. —T. BARRETT: Jan. 17.

MOSTYN.—Our lode is improving in the 10 ft. level. We have now a well-defined lode, 2 ft. wide, composed of gossan and carbonate of lime, with good stones of lead throughout the lode. —W. RAMSEY: Jan. 15.

MOUNT BAY CONSOLS.—The engine-shaft has been sunk during the past week 2 feet, and we have commenced driving the cross-cut in the 20 ft. level. The 55 ft. level east, on south lode, has been driven 6 feet—lode 15 in. wide, unproductive; east, on north lode, it has been driven 7 feet—lode 10 inches wide, yielding stones of copper ore. The cross-cut north has been driven 4 feet—ground more favourable for driving. The cross-cut south has been driven 5½ ft.; from the pressure of water in this end, we may expect a lode being very near. —J. RICHARDS: Jan. 17.

NANT-AR-NELLE.—The lode in the south stopes is 18 in. wide, composed of gossan, prill, and munda, with a rich branch of lead running through it. I expect a great improvement a few fathoms further south. The north stopes are suspended, for the present. —F. COVON: Jan. 15.

NANTES AND PENRHIL.—In the Eystumish deep adit the lode is without alteration since last reported on. In the 46, driving east of Penrhil, the lode has a very promising appearance, and yields ½ ton of ore per fm. In the stopes over the same lode on an average will yield from 12 to 14 cwt. of ore per fathom. In the 35 east the lode will yield about ½ ton of ore per fm. In the rise and stopes over the same lode will yield about ½ ton of ore per fathom. We sampled, on Saturday last, 30 tons of ore. —M. BARRETT: Jan. 15.

NANTILL VALE.—The lower level from the lake is fast progressing, and it is expected a few yards more driving will reach the slate rock. The east and west quarries will be emptied of rubbish by the end of the month, when from 200 to 300 tons per month may be safely calculated upon. —J. HOBBS: Jan. 15.

NORTH BARSET.—The rise is up above the back of the 52 ft. level (against Grace's shaft) 19 fms.; the lode is 4 ft. wide, composed of gossan, black ore, and green carbonate of copper, worth 50½ ft. per fm. In the eastern stopes in the back of the 52 ft. level, the lode is worth 70½ ft. per fm. In the western stopes in the back of the 52 ft. level the lode is worth 60½ ft. per fm. In the winze sinking below the 52 ft. level the lode is 4 feet wide, composed of grey and yellow ore, worth 80½ ft. per fm. We have suspended the driving of the 52 ft. level until Grace's shaft is communicated with the rise, the air not being sufficient to drive the end, and rise at the same time. —T. GRANVILLE: Jan. 15.

NORTH DOWNS.—The tributors in the principal pitches have been working by the side of the lode during the week, and the latter will not be taken down before the end of the next week. A party of tributors, however, in the back of the 80 fathom level extending east, have cut a good lode of ore, and at present it is turning out well. At East North Downs, the ground in Bennett's shaft continues favourable for sinking, and the men are working satisfactorily. I am glad to say that the dams remain perfect, and there is not the least appearance of any water coming from them, or from any of the ground in the vicinity. —J. PAINOR: Jan. 15.

NORTH FRANCES.—We have some improvement in driving the 20 east on the tin lode. The lode is easier, say 5½ ft. per fm., and is producing about 20½ tons of tin per fm.—size 4 feet. We have about 15 fms. to drive to hole to the winze sunk near the Foxhole shaft, and as there is a pretty good lode at this place, it is not unlikely that there may be a piece of tin ground between. In driving west on the lode cut in the 33 cross-cut, north of Stainby's, the lode is fair, 60s. per fathom would be a fair price; it is about 1½ ft. wide, mostly gossan, no ore; in driving east on the same lode, as we suppose, in the 30 cross-cut, north from the sump, the lode is 6 feet big, spotted throughout with rich ore, and very promising. We expect to hole through the 25 fathoms of ground between the cross-cuts, in two months at most. We have also got through the hard bar of elvan in driving the 40 cross-cut south of the engine-shaft, and are now in kyllas, worth 7½ or 8½ ft. per fathom. We are expecting daily to cut the lode (Hunt's). —Jan. 11.

NORTH SORTRIDGE.—We are still driving the adit end to intersect the lode, but do not expect to reach it yet; the ground is light blue kyllas: no doubt but what we shall have ore in the lode when it is reached. —Jan. 17.

NORTH WHEAL CROFTY.—The 110 south, on the cross-course, is still continued for the purpose of intersecting the south lode. The 100, driving west on the south branch, will shortly come in contact with the middle lode, where in the level above a fair quantity of copper ore has been discovered. The winze sinking below the 90 is worth about 10½ ft. per fathom; the 90, driving west, on the north part of Reeves's lode, is worth about 14½ ft. per fm. In the 80, west of the south part of ditto, the lode is large, and produces good stones of lead, appearance, producing saving work for copper ore. The 70 is near the cross-course in the south part of Reeves's lode, and when erected we shall drive on the same with all possible dispatch towards the north part of Reeves's lode and the northern lode, where in the 60 large quantities of copper ore have been discovered. The lode in the 90, driving east of Rule's shaft, on Reeves's lode, is producing a little copper ore; the lode is 6 ft. wide; and we are getting under large deposits of copper ore discovered in the 43 and upwards. We have suspended driving in the 43, on the north part of Reeves's lode—the end getting near the cross-course. We have let the back of the level on tribute to four men, at 6s. 6d. per ton. This lode for some considerable distance being entirely whole to the surface, we calculate large returns of copper ore from the back. —J. VIVIAN: Jan. 15.

NORTH WHEAL FRIENDSHIP.—We are at present driving the deep adit level west from Matthew's shaft; the lode in the present end of the level is from 2 to 3 ft. wide, producing good stones of lead. We are also driving the deep adit level north on the western cross-course; the lode here is about 1½ ft. wide, producing occasional stones of lead. At present there are four pitches working in the old mine, which are turning out fair quantities of lead; and about 20 tons would have been ready for sale by the end of the present month, had not the present severe weather come on. —ALEX. BARRETT: Jan. 15.

NORTH WHEAL ROBERT.—There is no alteration of importance in any part of the mine since Capt. Pryor's report to you, but I am glad to say that our prospects continue to increase. The pitches and stopes are yielding fair quantities of ore. One stopes in the bottom of the 30 ft. level is worth 3 tons of good ore per fm. —JAMES WOOLCOCK: Jan. 15.

I beg to inform you that the sinking of Murchison's engine-shaft is completed to the 62 fathom level; we shall at once commence to cut pit, and drive to intersect the lode. In the 52 ft. level, driving west, we have cut the south part of the cross-course, and hope to get through it in a few days. The lode in the 50 ft. level west is a little improved in appearance, but contains no ore to value. The stopes in the bottom of this level will yield 3 tons of good quality ore per fm. There is no alteration to notice in any other part of the mine, it being just as last reported. All operations are going on well. —A. PRYOR: Jan. 17.

NORTH WHEAL TRELAUNY (GURTECK).—In the 25 ft. level, west of Cory-ton's shaft, north end, the lode is 3 ft. wide, producing 10 cwt. per fm.; in the same level south it is 3½ ft. wide, producing 5 cwt. of lead per fm. In the 15 north it is 2 ft. wide, producing 12 cwt. of lead per fm.; in the same level south it is 2½ ft. wide, producing 4 cwt. of lead per fm.; in the winze sinking under this level it is 2 ft. wide, producing 5 cwt. of lead per fm. In the 13 east we have extended north and south on the quarry lode about 2 fathoms, and find it producing hornstone, with spots of lead; we have put this part of men to coasten further east, to search for Wheal Wrey lode. —H. HOBBS: Jan. 15.

OLD TREWETHER CONSOLS.—We shall complete dividing and casing down to the 40 ft. level by to-morrow night, and shall immediately commence cross-cutting to the lode. The lode in the end at the old bottom, driving south, is still producing some good work for lead. In the stopes in the back of the 37 ft. level, we are sorry to say, the ground is worked away to the 20 ft. level as far south as the cross-course. The lode in the end of the 20 ft. level, driving south, is small, but still producing stones of antimony. In the stopes in the back of this level we got up the old men's workings, and find the lode in this place worked up to surface, but are still breaking some good work for antimony from a stopes further north. In cross-cutting, we have not as yet intersected anything worthy of notice since last reported on. At Wheal Thomas, the lode in the end is large, composed of spar, with a quantity of sulphur, and spots of copper ore. Surface operations are without alteration since last reported on. —R. H. VERRAN; S. KEAST: Jan. 17.

OOLA.—We are progressing favourably with the adit level, and continue to meet with large quantities of greens, with stones of copper ore. The water is rapidly decreasing at our engine-shaft, and as soon as we have a little less weather our bottoms will become dry, and we shall then be in a position to increase our returns of lead and copper. —J. RICHARDS: Jan. 16.

stone = 3-41 oits perm. In this is not included the produce of the Suennata stamps, which will be ascertained only when the produce of the month is made up. Stamps working during same period, average 151-30 heads, and 19-23 days. The duty done by the stamps, Bahu, and the stamps, there are no stamps working in the month. There has been, I am sorry to say, a great proportion of soft killas. Stone for the second 10 days has been, I regret to have to report, still poorer than the first, and up to the present moment has continued equally bad, so that the produce for the month must be expected to be low; and the mining agents give me but small hopes of improvement till they have got through two stopes in the Bahu, in which there is a great deal of barren stone, both quartz and killas. These stopes had been made considerably higher than usual, and were consequently exposed an extraordinary time than usual to break them down, but they consequently exposed an extraordinary amount

getting through these two. In the Cachoira the quality is better than in the Bahia, as is that of the Quebrera Panella stone, which is being stamped by the Guasima stamps. We have been still obliged to take in from the old refuse heap, on account of the supply from the mine being short, both in consequence of the hauling being hindered by repeated lets, without any serious breakage, and also on account of the misunderstanding with the free labourers, as detailed in my diary of the 21st and 22d inst. I am happy to say they have been working regularly and cheerfully since, and during the last two weeks have averaged a greater number daily. Calculation of sand: The reverberatory furnace for this experiment is now ready, and every endeavour shall be made to secure results that may be depended upon.

LINEARES MINING COMPANY.—[Received from Capt. A. Martyn.]

Paso Ancho, Jan. 8.—In giving you my monthly report, I beg to inform you that in the engine-shaft, sinking below the 75 fm. level, there is no particular alteration to notice. The lode is still large, and spotted with ore, but not of sufficient quantity to value—8 fms. 1 ft. below the level. The 75 end west is in advance of the shaft 60 varas 2 ft.; the lode is still large, and spotted with ore. There appears to be more of the lode standing to the north; consequently, we have put the men to drive in that direction, to cut the north wall. In consequence of not being able to proceed with the mine in the 65 fm. level, owing to an increase of water, we have put the men to rise in the base of the 75 fm. level, and hope a few varas will drain the above mine; the lode for the present is poor. The 65 end is driven west of Romero winze 3 varas 3 feet; the lode is large, worth 1½ ton per fm. The 55 end, west of Gomez winze, continues poor. Don Carlos winze is sunk below the 55 fm. level 6 varas 1 ft. 6 in.; the lode continues large, worth 5 tons of ore per fm. At Varma's shaft, we have cleared 3 varas under the 20 fm. level to the bottom of the old men's workings; the lode is worth 1½ ton of ore per fm. At Victoria pertenencia, on the north lode, the 15 fm. level east is worth 1½ ton of ore per fm. The 15 fm. level, west of San Francisco, on this lode, is showing stones of ore, but not to value.—East of Engine-shaft: The 75 end is driven east of Buenavista winze 13 varas 1 foot; worth 3 tons of ore per fathom. The 65 end is in advance of Cortes winze 11 varas 2 feet; lode large, worth 3 tons of ore per fm. The 55 end is east of Rodriguez winze 4 varas 2 feet, worth 2½ tons per fm. The south branch, west of this winze, in this level is worth 2½ tons per fm. At Thorne's shaft, the 65 fm. level east is at present poor; in advance of the shaft 20 varas. The end west is in advance of the shaft 15 varas, worth 2 tons of ore per fm. There is nothing new to notice in the cross-cut driving north at this point. The 45 end is east of Companys winze 27 varas 1 ft. 6 in.; worth 2 tons of ore per fm. Etcetera winze is sunk below this level 20 varas; the lode is large, and worth 2 tons per fm. The 45 end, on the north lode, is driven beyond Galeas winze 5 varas; the lode is large, worth 3 tons of ore per fm. The end west on this lode is driven from the cross-cut 13 varas 1 foot; worth 4 tons of ore per fm. The 45 end, on the middle lode, is driven from the cross-cut 40 varas 1 foot; worth ½ ton per fm. The new winze in the bottom of the 20 fm. level, east of Thorne's shaft, is worth 2 tons of ore per fathom. The 20 fathom level, west of this shaft, on the middle lode, is worth ½ ton per fm. At Taylor's shaft, the 31 fm. level, on the north lode, is worth 1½ ton per fm.; in advance of the same 33 varas 1 ft. 6 in. The 31 end on the south lode, at this shaft, is beyond the cross-cut 7 varas; worth 1 ton per fm. Alexandros winze, west of the cross-cut, on the south lode, is sunk below the level 4 varas; worth 2½ tons per fm. The tribute department continues to look well. Our raisings for December will exceed the estimated quantity of 340 tons, and our calculation for January is 320 tons. We have 38 pitches in work, employing, with the tutwork, 195 men.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, Jan. 19, 1855.

COPPER.	£. s. d.	BRASS.	p. lb.	10 d.
Sheeting and bolts . . . p. lb.	0 1 2	QUICKSILVER . . . p. lb.	1 11	
Bottoms	0 1 3			
Old (Exchange)	0 1 0 ½			
Best selected p. ton	129 0 0	Foreign	25 0 0-25 5 0	
Tough cake	126 0 0	To arrive	25 0 0	
Tin	126 0 0			
South American	126 0 0	In sheets	30 0 0	
IRON.				
per Ton.				
• Bars, Welsh, in London.	9 0 0	English blocks	117 0 0	
• Ditto, to arrive	7 15 0-8 0 0	Ditto, Bars (in barrels)	118 0 0	
• Nail rods	8 10 0	Ditto, Refined	121 0 0	
• •, Stafford, in London	10 0 0-10 10 0	Banco	112 10 0	
• Bars ditto	10 0 0-12 0 0	Straits	110 0 0-111 0 0	
• Hoops ditto	11 0 0-11 10 0	TIN-PLATES.		
• Sheets, single	12 0 0-12 10 0	IC Charcoal p. box	1 12 6-1 18 6	
Fig. No. 1, in Wales	4 15 0-5 15 0	IX Ditto	1 18 6-1 19 6	
Refined metal, ditto	5 15 0-5 15 0	IC Coke	1 7 6-1 8 0	
Bars, common, ditto	6 15 0-7 0 0	IX Ditto	1 13 6-1 14 0	
Ditto, railway, ditto	6 0 0-6 5 0	Canada plates p. ton	15 0 0-15 10 0	
Ditto, Swedish, in Lond.	15 10 0	In London; 20s. less at the works.		
Fig. No. 1, in Clyde	3 8 0-3 9 0			
LEAD.				
English Pig	22 10 0-23 0 0	Patent Yellow Metal Sheet	0 1 0	
Ditto sheet	24 0 0	ing (Muntz) p. lb.	1 0 1	
Ditto red lead	24 0 0	Wetterstedt's Pat. Met. p. cwt.	2 2 6	
Ditto white	27 10 0-29 0 0	Stirling's Non-lamina	0 0 0-9 2 0	
Ditto patent shot	26 10 0	ing, or Hardened	0 0 0-9 2 0	
Spanish, in bond	22 5 0-23 0 0	Surface Rais. p. ton		
American	none.	Stirling's Patent		
FOREIGN STEEL.				
Swedish, in keg. p. ton	18 0 0-18 10 0	Toughened Pig. Glasg.	5 5 0	
Ditto, in faggots	18 10 0	Ditto	4 0 0-4 5 0	
English, Spring	22 0 0-24 0 0	Indian Charcoal Pigs	6 10 0	
In Liverpool, 5s. per ton less.		In London	6 10 0	
* At the works, 1s. to 1s. 6d. per box less.		In Liverpool, 6d. per box less.		

REMARKS.—We have but little change to report in the state of our market, the transactions in metals during the week being limited, and business generally has been very dull. Prices are mostly the same as inserted in our last Journal.

COPPER.—There has been a good steady home consumption for this metal, but exports have rather diminished; as yet no probability appears of any alteration in current rates. The sale of ores at Swansea on the 16th inst. amounted to 1413 tons; the quantity announced for sale on the 30th inst. is 1700 tons.

IRON.—Prices of English continue the same as last quoted. Merchants seem more disposed to execute their orders, and it is probable we may shortly see more doing, as the late reductions that have taken place will, no doubt, induce many parties to purchase who have been holding off in anticipation of such a decline. Staffordshire qualities have not received much attention; prices are nominal. The ironmasters have resolved not to reduce the make 20 per cent., which will cause much underselling amongst the second quality makers, and consequently create a very undecided feeling in the market. A fair business has been done in Scotch pigs; prices have not fluctuated more than 2s. per ton. On 'Change to-day sellers were quoting 67s. cash, 67s. 3d. prompt, one month; but no buyers appeared above 66s. mixed numbers, cash, good merchantable brands, free on board in the Clyde.

LEAD remains dull, at former rates.

SPELT.—A sale has been effected at 25s. 10s. for delivery out of stock. The market has rather improved since the frost has set in, and sellers now quote 5s. to 10s. advance upon last week's prices.

TIN.—A fair business doing in English; prices are well maintained. Banca is dull; the stock here is rather small. Straits has not been enquired for to any extent. TIN-PLATES are dull of sale.

STEEL.—A good enquiry for Swedish keg, at our quotations.

QUICKSILVER is a little better in demand, and rather improved in value.

GLASGOW, Jan. 18.—The strong buying of last week has been succeeded by a few days of total inactivity, the price remaining nominally at 66s. 6d., being 1s. 6d. per ton under the highest price paid recently. The shipments of last week are more than double those of the same week in 1854, and this, together with the hopes still entertained of an early peace, causes a firm feeling, which, however, is counteracted by the very bad accounts from Staffordshire, and the gloomy aspect of other trades in this city. A movement has commenced towards a reduction of wages, both of the colliers and of the men employed in ironworks, but it does not seem yet to be quite general. Shipments for the week ending the 13th January:—

Foreign	1855.	1854.
Coastwise	2502	1023
Total	4357	2181
Total	Tons. 7179	Tons. 3204

LIVERPOOL, Jan. 18.—At the close of the Staffordshire meetings, a reduction of 4s. per ton was declared upon the prices of Iron on the previous quarter-day, but which reduction had been generally conceded some weeks ago. The iron trade is quiet, and present prices seem likely to be maintained. Scotch-Pigs, however, realised to 65s. 6d. per ton, and the market is very slow. In other metals no change.

PARIS.—Although the amount of business has not increased, former prices are firmly maintained, and it is even thought by some operators that a rise is not improbable. The demand for iron wire increases; prices, however, have but little varied. The quotations for pigs for France remain much the same, and the transactions are exceedingly limited. At St. Denis, the pig-iron trade remains much the same as regards price, although orders are dropping in more plentifully, and it is rumored that some few bargains have been made at a slight advance. The same remarks are beginning to receive orders for actual requirements, the stocks, in most instances, having been reduced to the lowest possible point. Copper continues scarce at Paris, and it has consequently slightly advanced. At Amsterdam, the appearance is also favourable, and although the Hamburg market is very quiet, there seems no disposition on the part of holders to operate at lower rates. Zinc, tin, and lead, remain unchanged. The Journal de Commerce publishes the following with regard to Belgian markets:—We have nothing new to notice in the metal trade; former prices, however, are fully maintained. Iron has still an upward tendency, and the stock is absolutely full. The activity in our factories is considerable. Rods have been freely dealt in this week, and there is a tendency to an additional rise. Coal is scarce, and the demand greater. At Liege, the general appearance of the market is more favourable, and there appeared a slightly upward movement. Many orders have been taken at the mines since the 1st January, at former rates.

CALCUTTA, Dec. 5.—Of metals we can only report that, without speculation, trade is steady. Copper rather declining from late extreme prices. Iron in steady

sale at full rates. Swedish rising in value. Spelter rather lower. Lead inactive, Tin plates selling freely. Salt is a shade lower. Beer dull, but holders firm.

MINES.—There has been a good amount of business doing, without any particular change in the market, this week. United Mines shares have been in demand, owing to an improvement in the mine, at 125s. to 135s.; Alfred Consols have been done at 17s. 10s.; Great Wheel Fortune, 11s.; Basset, 560s.; West Basset, 30s. to 30s. 10s., ex. div.; West Providence, 23s.; North Basset rather enquired after, at 18s. 5s. to 18s. 10s.; Tre-fusis, in consequence of a discovery, have been in great request, and advanced to 64s.; East Basset, 29s. to 31s.; Vale of Towry, 9s. to 10s.; Garreg, 7s. 6d.; St. Day United, 2s.; South Frances, 300s. to 325s.; Gram-bler and St. Aubyn, 21s. 10s. to 22s. 10s.; South Tamar, 6s. 17s. 6d. to 7s.; North Robert, 18s.; West Caradon, 180s.; Rosewarne, 70s. to 75s.; South Caradon, 320s. to 340s.; Wheel Wroys have been in active demand, at 4s. 6s. to 4s. 15s.; Keawick, 1s. to 1s. 6s.; Sortridge, 1s. 17s. 6d. to 2s. 2s. 6d., call paid; Devon Great Consols, 372s. 10s. to 377s. 10s.; West Darnall, 100s.; Copper Hill, 55s.; Buller, 560s., ex. div.; Hingston Down, 12s. 5s. to 12s. 15s.; Bedford United, 8s. 17s. 6d. to 9s. 2s. 6d.; Tincroft, 2s. 5s. to 2s. 15s.; West Alfred Consols, 21s.; North Downs, 3s. to 3s. 5s.; East Tamar, 14s. 6d. to 15s. 6d.; Tamar Consols, 1s. 10s. to 1s. 15s.; Clifjah and Wentworth, 14s. 15s. to 15s.

In the Bullion Market.—Mexican dollars, 5s. 0½d. per oz.

At the Sortridge Consols meeting, as announced in the usual place, a call of 5s. per share, on 12,000 shares, was made, to provide funds for the next three months, and also for part payment of the new engine. A long discussion took place upon the complaint of a shareholder, relative to the nature of the reports from the mine since the last meeting; and it was eventually agreed to have an independent agent to inspect the mine, and that his report should be printed, and sent to every shareholder. The highest testimony was borne by several parties present to the honesty and integrity of the present agent; and as mention was made at the meeting by some of his friends, respecting the remarks we felt called upon to make in our last, and which were further characterised by the secretary as impolitic and injurious, it may not be out of place to repeat here, that our remarks had reference to complaints publicly made by many of the largest shareholders, and that in noticing them we did so without "imputing unworthy motives" to the agent, of whom we know nothing personally, and against whom we can have no personal feeling whatever. That the reports from the mine have been more than "usually uncertain," even for this description of property, we refer our readers to three reports, dated respectively Nov. 23, Nov. 30, and Dec. 7; that of the 30th Nov. was the theme of a long discussion at the meeting, the propriety being much canvassed of an agent volunteering to state, that from "one ground laid open" the adventurers might form an idea "of what we have yet to send to market," and making the estimate 33,840s. when the very next report showed a decided falling off in the mine. Although, however, this was the principal charge noticed at the meeting, it was not the one to which our remarks, and the complaints of a large body of shareholders, specially referred. We complained, that for the 4th January the agent's report informed the shareholders that the mine was full of water. Here is the report, *verbatim*:—"Last Thursday night we had a breakage in our engine, which let the water in, and have not been in work since; therefore, we have done nothing underground. To-day I have let the stone-drawing to the engine-house, and are preparing to begin to build, which will be in a few days.—Jan. 4." The accident, to which this letter referred, happened on Thursday, Dec. 29, and was repaired by Saturday, the 31st—both circumstances being well known to certain parties in London by means of the electric telegraph. The official report, dated January 4, long after the accident had been remedied, referred merely to the accident itself, and in the most meagre manner, and this was published in the Mining Journal of the Saturday following; and on the Monday morning, many shareholders, becoming alarmed, sold their shares at a loss of 3s. per share, whilst by means of the electric telegraph, as before observed, it was known in London to a few persons the damage was so trifling that it had been all repaired on the Saturday night, and soon afterwards the lode was out beyond the slide, worth 4 tons per fathom.

A few months since, the breakage of an engine at a mine in Cornwall cost the shareholders 5000s.; and our chief complaint was, that the "full truth was not told" in the agent's report of Sortridge Consols; and that the shareholders not in the secret were led to imagine the accident as far more serious than it was. The secretary stated at the meeting he considered the report of the captain so meagre on this head that he wrote and remonstrated with him—doing, in fact, privately what he complains that we did publicly. Again, we stated that, considering the fate of things to which we referred (and against which the secretary privately remonstrated), we were not surprised at the "loud complaints which we heard on all sides." And now, let us listen to the chairman. After the agent's report had been read to the meeting, the chairman rose, and informed them he had received a letter (which he should read) from Mr. Hitchens, in reply to one which he (the chairman) had written, referring to the great complaints made as to the management of the mine. On enquiry, we found this letter of the chairman, referring to the "complaints," was written two days before our remarks in the Mining Journal. These complaints, therefore, were well known and patent to all.

We have never expressed but one opinion of the mine itself; and, notwithstanding the opinions of the secretary, and a few of the private friends of the agent, we do not regret having called attention to its management. It has brought out that the agent is an honest and good miner, and we feel convinced for the future we may expect fuller and more explicit reports, and that the real state of the mine will simultaneously be given to "one and all," and Capt. Metherell will understand, henceforth, he is the servant, not of any particular clique, but of the general body of shareholders.

At Wheel Buller meeting, on Tuesday, the accounts showed—Balance from last account, 1417s. 16s. 7d.; ores sold, Oct. and Nov. (11,756s. 9s. 3d., less dues 734s. 15s. 7d.), 11,021s. 13s. 8d.; 12,439s. 10s. 3d.—Mine cost, Nov., 1368s. 19s. 9d.; Dec., 1559s. 2s. 8d.; merchants' bills, 1426s. 3s. 7d.; leaving balance in favour of adventurers, 8087s. 4s. 3d. A dividend of 25s. per share (6400s.) was declared, which, after payment, left a sum of 1686s. 4s. 3d. to next account. The net profit on the two months' working was 6667s. 7s. 8d. The captain reported that the mine had not been looking better than at the present time for the last 12 months.

At West Darnall Mine meeting, on the 8th inst., the accounts for Oct. and Nov. showed—Balance from last account, 708s. 0s. 8d.; ores sold (less dues), 1603s. 10s. 9d.; 2311s. 11s. 5d.—Mine costs and merchants' bills, 1044s. 12s. 9d.; by dividend of 2s. per share (512s.); leaving balance in hand, 754s. 18s. 8d.

At West Basset Mine meeting, on Wednesday, the accounts showed—Balance from last account, 923s. 6s. 4d.; advance on tribute in Sept., 220s.; copper ores sold, Oct., 4029s. 17s. 7d.; Nov., 4133s. 2s. 5d.; 12,306s. 6s. 4d.—Dividend of 10s. per share, Nov., 3000s.; mine cost and merchants' bills, Oct., 1789s. 6s. 7d.; Nov., 2753s. 8s. 2d.; advance on tribute, 230s.; leaving balance in favour of adventurers, 4133s. 2s. 5d. A dividend of 10s. per share was declared. Capt. W. Roberts, after giving a very elaborate report of the work done in every part of the mine, concludes by observing that the heavy castings at Thomas's engine are fixed, and by the time the shaft and pitwork are ready, the engine will be prepared to work. The cost of working the mine, including materials for pitwork, &c., for the next two months, will probably amount to 4600s. He hoped to sample, on the 24th inst., about 600 tons of ore. In the estimated accounts of receipts and liabilities for the ensuing two months, the anticipated cash balance was 4366s. 4s. 1d.

At North Wheal United meeting, on the 12th inst., the accounts showed—Calls received, 1500s.; copper ore sold (40s. 0s. 5d., less 1-18th dues, 505s. 1s. 8d.); mine cost, Sept. to Dec., 543s. 13s. 7d.; merchants' bills, 425s. 18s.; leaving balance in favour of adventurers of 63s. 2s. 10d. Capt. Hugh Stephens reported that since the last meeting the engine has been set to work, the shaft cleared and cut down to the bottom, which was found to be 10 ft. below the 34; on the south lode, Cox's shaft was sunk 30 fms. They have four pitches at work, and the ground was cheap to explore. The prospects, on the whole, are flattering. The engine-shaft had since the meeting been set to sink and complete from the 34 to the 46, for 90f.

At Prigant Consols Silver-Lead Mining Company meeting, on the 8th inst. (Mr. Alex. Duncan in the chair), the accounts showed—Balance at bankers, 673s. 10s. 7d.; interest, 4s. 10s. 9d.; 678s. 1s. 4d.—Mine cost, Dec., 36s. 19s. 7d.; Jan., 40s. 10s.; J. H. Griffiths, retiring portion, 8s. 11s.; leaving balance in favour of adventurers, 592s. 0s. 9d. Capt. Grieves reported that the ground continued hard and wet, and by all appearances they must be up to some lode soon. The committee were re-appointed.

At the Holmehush Mining Company meeting, on Monday (Mr. Pilcher in the chair), a resolution was carried for altering the constitution of the company by cancelling the Deed of Settlement, and re-establishing it upon the Cost-book System. The mine, which is now divided into 953 shares, it was proposed to alter to 30,000—the present holders to have 20 shares for every one now held, and the remainder to be disposed of, to form a reserve capital to work the property vigorously. It was stated that when the mine first came into Messrs. Crease's office the loss was 600s. per month, but was now reduced to 100s. The directors were unanimously elected the committee of management for the next three months. The proceedings, which terminated with a cordial vote of thanks to the chairman, are fully detailed in another column.

At Castle Dinas Mining Company meeting, yesterday, at Salvador House (Mr. Ball in the chair), the accounts for six months ending with November costs showed—Call of 10s. per 4096 shares, made September (less on 1093 forfeited), 1501s. 10s.; black tin sold, 141s.—1642s. 10s.—Balance last account, 482s. 1s. 6d.; mine costs, 587s. 16s.; expenses of deputation to try Berdan's machine, &c., 29s. 4s. 8d.; leaving balance in favour of mine, assuming all costs and liabilities paid, 643s. 7s. 10d. The report of the committee expressed a very high opinion of the present local management, and of the favourable results which there is every probability of obtaining when the mine has been more fully developed. Mr. Freeman, the purser, stated that the opinion thus advanced was not taken from hearsay, or from any agent's report, but from positive observation, made no later than Wednesday last. The costs had been reduced nearly one-third; and, amongst other retrenchments, the engine and its attendants have been dispensed with—the stamps being worked quite as efficiently by the means of water-power. A great saving had been thus effected in the article of costs alone, while nothing had been got rid of but what was utterly useless. The report and accounts were unanimously adopted. The meeting was very thinly attended.

At the Devon Tin Mines meeting, the accounts to the 30th November last showed a balance in favour of the mines of 446s. 11s.: 275 shares, in arrears of the call of 10s., were declared forfeited, and added to the reserved shares of the company, and the committee were empowered to issue the whole, or any portion of the reserved shares, at not less than 1s. per share, the amount received to be added to the capital. From the want of dwellings, and the difficulty of carrying on the works during the winter months, it was considered advisable to stop operations, except at the north mine. The committee of management were re-elected, with the addition of Mr. Alexander Greig. Capt. William Thomas and James Thomas reported that the new engine-shaft is sunk to the 26, and for 10 fms. below the 15 the shaft has been sunk through good tin ground. The mine never looked so well as at the present time. They had a very good six-head stamping-mill, which would stamp 200 sacks per week, and had ready for sale about 23 cwt. of black tin.

At the Crow Hill Mining Company meeting, on Tuesday, the accounts showed, after valuation of the machinery, and paying off every liability, a balance against the adventurers of 71s. 5s. 5d. The mine was re-constituted under the Cost-book System, and a call of 5s. per share made, to vigorously prosecute the works. In consequence of the small balance against the mine, it was unanimously agreed not to call upon the retiring shareholders to pay any portion of it.

At Clara Mine meeting, on Wednesday (Mr. J. La Mert in the chair), the accounts showed a balance against the mine of 51s. 5s. 9d. Captain Trevelthan stated, in his report, that since he had sent the small specimen, his son had informed him that the improvement from one day to the other was beyond calculation; that the lode was 6 feet wide, and all good saving work for dressing; some of the stones weighed nearly 1 cwt., and were nearly solid. The lode at present would yield from 3 to 4 tons of ore per fm., and was hourly improving. They had broken and drawn to the surface upwards of 100 whim-kibbles of good work. The meeting was subsequently made special, and shares upon which calls had not been paid were declared forfeited, but the secretary was requested to write to the holders, informing them that the shares can be reinstated on payment of the calls on or before the 23d inst.

At Cefn Gwyn Mining Company meeting, on Wednesday (Mr. B. Fyfe in the chair), the accounts showed a balance against the mine of 241s. 11s. 8d. The mine costs for five months ending November were 564s. 5s. 10d., and the ore raised (12 tons) realised 131s. 1s. 6d. The meeting expressed its dissatisfaction at the conduct of Capt. Trevelthan, in having from time to time sent reports calculated to induce the shareholders to continue working a mine which has proved, upon the inspection of two competent agents, to have been always worthless. Under these circumstances, it was resolved that the works be suspended.

At Wheal Uny meeting, on Monday (Mr. Hinds in the chair), the accounts showed—Balance from last account, 378s. 7s. 10d.; mine cost, Sept., Oct., and Nov., 2397s. 18s. 8d.; merchants' bills, 1194s. 0s. 4d.; lord's dues, 94s. 7s. 2d.; Mr. E. King, salary, &c., 18s. 10s.—1083s. 3s. 7d.—Calls received, 2048s.; tin sold, 1208s. 7s. 6d.; copper ore sold, 295s. 7s. 4d.; copper ore raised, 300s.; leaving balance against the mine, 231s. 8s. 9d. A call of 10s. per share was made, and Messrs. Hinds, Munt, and Spalding, and Dr. Kennedy, re-appointed the committee of management. Captain Jas. Rowe reported that the mine was looking much better, and he fully believed they would have a great and good mine. They will sample, next week, about 600s. worth of copper.

At Devon and Cornwall United Mines meeting, on the 10th inst. (Mr. Joseph Hopwood in the chair), the accounts showed—Balance from last account, 612s. 2s. 10d.; mine cost, Oct., 154s. 12s. 6d.; Nov., 121s. 11s.; timber, 25s. 10s.; secretary's salary, &c., 9s. 9s.—923s. 5s. 5d.—Calls received, 556s. 4s. 6d.; leaving balance against adventurers, 367s. 0s. 11d. A call of 5s. per share was made. Capt. Thos. Neil reported that Harewood shaft is now 86 fms. below the surface; ground still congenial for mineral. The general prospects were of a cheering character, and he hoped soon to be in the market with a good sampling of copper ore.

At Leeds and St. Aubyn Consols Mine meeting, on the 9th inst. (Mr. F. Hill in the chair), the accounts showed—Mine cost, July, 439s. 12s. 8d.; August, 394s. 8s. 7d.; September, 471s. 13s. 10d.; merchants' bills, 527s. 12s.; lord's dues (1-18th), 82s. 17s. 9d.; 1916s. 4s. 10d.—Tin sold, 1492s.; leaving balance against adventurers, 424s. 4s. 10d. A call of 10s. per share was made. Capt. Joseph Vivian and M. W. Martyn reported that the engine-shaft is now down to the 20. The adit has been driven 18 fms. east of Stephens's whim-shaft; the lode is from 6 to 6 feet wide, kindly in appearance, and opening tribute ground. The mine, on the whole, is looking well. They estimate the next quarter to rise about 30 tons of tin, at 62s.—1860s., at a cost of about 1650s. They have 30 men stopping at an average tribute of 7s. 6d. in 17, and 30 men on tutwork.

At the Rorington Mining Company meeting, on Tuesday (Mr. James Ennor in the chair), the accounts showed—Balance from the last account, 562s. 11s. 10d.; mine cost, Aug., 147s. 0s. 11d.; Sept., 222s. 11s. 11d.; October, 247s. 15s. 5d.; Nov., 211s. 7s. 3d.; stamps, &c., 1s. 13s. 5d.—1393s. 0s. 9d.—Call made in July, 609s. 6s. 6d.; ditto less unpaid and forfeited, 425s. 17s.; lead ore sold, 161s. 1s. 6d.; sulphate of barytes, 9s. 15s.; interest, 1s. 7d.; leaving balance against mine, 187s. 0s. 2d. The statement of assets over liabilities (assuming all calls to be paid) showed a balance of the former of 160s. 6s. 10d. A call of 1s. per share was made. A favourable report from Capt. Taylor and Meredith was read. The mine is well stocked with timber and iron, and every effort has been made to reduce the expenditure, which will for the future, it is said, be considerably less, while the returns are expected to be greatly increased as the works proceed. The article of sulphate (barytes) with which the mine abounds, and some hundred tons of which can be raised monthly at a mere nominal cost, is in great demand, and likely to enhance the value of the property. Amongst other retrenchments, Mr. Stainsby has voluntarily reduced his salary from 8s. 8s. to 5s. 6s. per month. A special vote of thanks was passed to Mr. Thomas Watson and Mr. Northern, for their zeal and exertions on behalf of the company.

At Trannack and Besene adjourned meeting, on the 16th inst., convened for the purpose of confirming, or otherwise, a resolution of the meeting of the 29th December, to the effect that, from the great number of shares relinquished, and the general appearance of the mines, the same be abandoned, and the machinery offered to the lords,—it was resolved, "That such resolution be, and the same is hereby confirmed; and that the purser be instructed to immediately offer the materials to the lords accordingly, and that in case they shall not accept thereof within 30 days from the time of such offer, then that the purser do take the necessary steps to dispose of the same by public auction or by private contract, as he shall think best."

At Great Tregone Consols Mining Company meeting, on Thursday, the accounts showed—Balance at bankers, 509s. 5s.; shares sold, 762s.; 1271s. 5s.—Amount expended since last meeting, 1108s. 12s. 2d.; leaving balance at bankers, 170s. 12s. 10d.—Capt. Spargo reported that the lode in Hobler's shaft was much improved, and expected, before they reached the

next 10 fathoms, to be in possession of a rich course of copper. The accounts and reports were adopted, and Mr. G. W. Scott elected a director in the room of Mr. Barclay, who had resigned.

At the Sorridge Consols Mining Company meeting, on Tuesday (Mr. W. A. Thomas in the chair), the accounts and general balance-sheet presented showed a balance in favour of the mine of 1755. The estimate of receipt and expenditure for the next three months was also presented, and showed the necessity of providing immediately the sum of 1775. 13s. 2d., to be exclusively devoted to the working of the mine for costs, materials, and royalties for the next three months, leaving the ore computed to be raised during the same period, estimated at 1400t., as an equivalent to the expense of the new engine and its accessories. A report from Capt. James Metherell was read, and in which he referred to the remarks in our leading article of last week, assuring the meeting that he had never written a single line with a view to cause the least excitement, or, on the contrary, to depreciate the value of the mine for any unfair purpose, and that he will never be induced to do anything of the kind. He further states that he is quite easy in his mind about having carried on the mine with judgment and strict economy in every respect, with a view to the greatest possible advantage to the shareholders, not looking either to the right or left to know any other interest. The new steam-engine is expected to be completed in the course of a very short time. Capt. Metherell also represents the present prospects of the mine to be favourable, and judging from them, as well as past results, he is decidedly of opinion that Sorridge Consols will not fail to make a good paying mine. A letter from Mr. J. H. Hitchens, of the same date, was also read, and represented the conduct and management of Capt. Metherell as deserving the fullest confidence of the shareholders—an opinion in which the meeting fully concurred. A protracted discussion ensued, which ended in a call of 5s. per share being made, payable on or before Feb. 6. Thanks were voted to the chairman and committee, and the meeting separated.

Wh. Kitty (St. Agnes), Polberro, East Wheel Vor, have sold black tin. Egnair Mwyn, Thomas's United, Keswick, Taliesin, and Wheel Wrey, have sold lead ore.

Great Wheel Vor has this week sold 23 tons of black tin, producing 1400t. The temporary stoppages of the great engine, while putting down the pitwork, and the Christmas holidays, have prevented a larger quantity being dressed. The drainage is proceeding very satisfactorily.

The Welsh Potosi Mining Company declared a dividend, on account, at the rate of 10 per cent. on their paid-up capital. The report of the meeting appeared in our last Journal.

At West Phoenix Mine, the wheel and stamps have been set to work, and they have commenced dressing the tin on the mine, calculated at 15 or 16 tons. The sampling will shortly take place. The mine looks well.

At Wheel Gill, the lode has just been cut into in the 22 fathom level, and contains more lead than the level above. A winze is sinking in the 10 fm. level, on a lode worth 5 cwt. per fm. of rich silver-lead. The sett adjoins the Treveltha and Wheel Wrey setts, and has the same lode passing through the sett for upwards of one mile. The lode now working on is supposed to be the Treveltha and Mary Ann.

The Great Sheba Mine is improving, and the next sampling will be about 175 tons of ore. A much larger quantity would have been sampled but for the occupation of the shaft in fixing pumps. The lode is extraordinarily large, being 12 ft. wide. Wheel Mary Great Consols is progressing satisfactorily, and in driving the level in the 82 they are nearly under the course of ore seen for 100 fms. long in the level above, where a great improvement is expected.

At the Prince of Wales Mine, there has been an important discovery of gold, about 4 fms. from surface. The discovery took place in the western end of the cross-cut, over the gold sink; the lode (quartz) is 2 ft. wide, and spotted all through with visible gold in the lead and blende; they have been raising it every day since.

On Monday, a new mine was opened, adjoining the Prince of Wales, called the West Prince of Wales, and made fair to be a good mine.

At the Dolfrwynog Gold Mine, they are progressing fast with their engine-house, to receive their 70-horse engine. They are still working two pans, fixed with revolving balls (Capt. David's engine), and obtaining fair quantities of gold.

Mr. Bruin is in possession of the Cwmheisan Mine, and all the plant of the late company.

Vigra and Clogau have stopped: no men are at work.

At the Gloster Mine, some very fine copper ore is being raised.

The British and Foreign Manganese Company are progressing exceedingly well: they have already about 1000t. worth of good quality manganese at surface in their Devonshire property, which they are preparing for the market; Mr. Sims, the manager, having large orders to supply, as soon as the manganese can be prepared for shipment. The company are in negotiation for other valuable grants to add to their property.

During the week, shares have changed hands in the following—
DIVIDEND MINES.—Alfred Consols, East Wheel Rose, Devon Great Consols, Merilyn, Kingston Down, North Wheel Basset, South Tamar, South Tamar, South Wheel Basset, Tamar Consols, United Mines, Welsh Potosi, West Caradon, Wheel Damsel, West Providence, Wheel Arthur, Wheel Basset, Wheel Buller, Wheel Golden, Lacka-moore, Mining Company of Ireland, and Wicklow.

MINES WHICH HAVE SOLD ORE.—Rolling Well, Buller and Basset, Clifton and Wentworth, Devon Buller Great Consols, East Basset, East Tamar, Garreg, Grombler and St. Aubyn, Great Grombler, Great Sheba, Great Wheel Alfred, Great Wheel Fortune, Keswick, Leeds, Lundy, Madron, North Downs, North Wheel Robert, North Wheel Treveltha, Rosewarne, Sorridge and Bedford, South Bedford, South Bog, South Garra, St. Day United, Vale of Towy, West Alfred, Wheel Friendship, Wheel Kitty, Wheel Mary Great Consols, Wheel Treveltha, Wheel Ury, Wood, Taseen.

MINES WHICH HAVE NOT SOLD ORE.—Bodewy, Cefn Gwyn, East Frongoch, New Wheel Friendship, Nant-ar-Nelle, North Hington Consols, Tamar Maria, West Phoenix, Wheel Gill, Wheel Ludcott, Oola.

In Foreign Mines, the market has decidedly improved during the week, and the favourable report received by the Royal Santiago Company caused some demand for the shares at an improved price, and several transactions took place yesterday at 3½ to 4, and the closing price was marked at 4 to 4½. St. John del Rey shares was the only exception to the general improvement, changing hands yesterday at 2½. The closing price of Imperial Brazilian was 3½ to 3¾; National Brazilian, 1½; Copalco, 1½; Linares, 7 to 8; United Mines, 3½; Mexican and South American, 4½ to 5. The following quotations are merely nominal:—Jamaica Copper, ½ to ¾; per share; Cologne Mining, 3-16th to 7-16th per share; Iberian, ½ dia. to ¾; per share; Oberhof, ½ to ¾; per share; Peninsular Mining, ½ to ¾; dia.; Clarendon of Jamaica, ½ dia. to ¾; per share; San Fernando, 3-16th to 5-16th per share; Metcalf of Jamaica, 1-16th to 3-16th per share; Port Royal of Jamaica, ¾ to 1 per share; Wildberg Consols, 1½ to 1¾ per share.

The Mexican and South American Company have declared their nineteenth dividend, of 7s. 6d. per share.

The Linares Mining Company have advices to the 8th inst. The 65 and 120 shafts, driven west of Romero winze 35 ft. 2 in.; lode large, worth 1½ ton per fathom. Don Carlos winze is sunk below the 55 fm. level 5 ft. 6 in.; the lode continues large, worth 5 tons of ore per fm.—East of Engine-shaft: The 75 and 120 are driven east of Buendias winze 15 ft. 1 in.; lode large, worth 3 tons of ore per fm. The 45 and 120, on the north lode, is driven beyond Galaros winze 5 ft. 5 in.; lode large, worth 3 tons of ore per fm.; the end west on this lode is driven from the cross-cut 13 ft. 1 in., worth 4 tons of ore per fm. The tribute department continues to look well; the raisings for Dec. will exceed the estimated quantity (340 tons), and the calculation for Jan. is 350 tons. They have 38 pitches in work, employing, with the tutwork, 195 men.

The New Linares Mining and Smelting Company have convened a meeting for Tuesday next, to confer as to the best mode of carry out the proposed sale, or otherwise relieving the company from its present position. Unless the whole of the 60,000 shares now offered at 6s. are subscribed for, the money paid will be returned.

La Fortuna Mining Company have advices from Mr. H. Thomas, dated Linares, Jan. 1, that "the boiler of Canada Inco engine has been put together by the riveters, and no time will be lost in getting it into its place, and in getting the engine to work, of which I hope my next report will advise you. The engine-house at La Salidas is rapidly advancing, and good progress has also been made in the new smelting-works. There is nothing further of importance to notice, as our understanding will follow the working of the engine."

Las Infantas Lead Mining Company have received advices from Mr. Joseph Lee Thomas, their manager at Linares. The pitch on the eastern lode, at St. John's shaft, has been taken to a tributary 4½ ft. 4 in. from the surface. On the western lode, the Spaniards engaged in sinking Kennard's shaft were making fair progress. The pitch in the 30 fm. level, north of Kennard's shaft, was producing a fair quantity of ore. The 30 fm. level, driving south-east, was worth 1½ ton per fm. The 24 fathom level, driving north, continued worth 2 tons per fm., and the two pitches in the north and south of the 24 fm. level were worth respectively about 1½ and 1 ton per fm.

The Imperial Brazilian Mining Association have received advices to the 1st Dec. The increased and increasing produce reported last month has been maintained, being for the month of November 10 lbs. 4 ozs. 15 dwts., or an increase of about 3 lbs. over the preceding month. By the Severn the association has received a remittance of gold dust, amounting to 21 lbs. 3 ozs. 8 dwts. The report of Capt. Treloar has been received. He does not speak so well of the Canara and Cata Fandus as was anticipated, but at Gongo Soco he is very sanguine of success from the Cumbar and Daval's shoot, which are entire below the 21 fm. level, and in times past yielded rich returns. To prove these veins, a 27 fm. level is being driven with all possible dispatch, which will not only effect this object, but also give much more productive workings for the stamps. On the whole, affairs seem to have assumed a better aspect, and Capt. Treloar's report is very encouraging.

The National Brazilian Mining Association have received advices, dated Linares, November 29.—"The operation at this mine has continued in driving the east-end, from which a good sample was taken last week, and in the back a small pipe of workings has been discovered. I have examined the Cuibana Mine carefully, and have advised Leach to stamp the different layers apart, so as to know on which the most energy; I will send you the result, which, I believe, will be more than successful. Produce for the month, Mks. 320 68."

The St. John del Rey Mining Company have advices to the 30th Nov. Twelve boxes left the mines on the 27th for Rio, containing 56,512 ozs. = 353,034 lbs. of amalgamated gold, which would be shipped per steamer to Southampton, unless the agents succeeded in selling it upon the usual terms at Rio. Gold extracted was 16,134 ozs., from 1067-32 cubic feet of sand (result of 20 days' stamping), yielding 15-11 ozs. per cubic foot, and of 4732-4 tons of stone = 341 ozs. per ton. The misunderstanding with the free labourers had been arranged, and they were now working regularly and cheerfully.

The Royal Santiago Mining Company have advices to the 13th Dec. Their engine-shaft is sunk 4 fms. 1 ft. below the 62; the lode is about 7 feet wide, 3 ft. of which is saving work, and will produce 3 tons of ore per fm. In driving the 120 shaft, they discovered the lode, which had a very promising appearance. They cut into it about 3 feet in copper ore, and no south wall as yet; this was a most important point as to the future prospects of the mine, there being no level under the lode itself, and the strata about it, in a very settled state. At Angelita, the lode in the adit level, east from shaft, is 3½ feet wide, and will produce 2 tons of ore per fm.; this is considered to be a very promising piece of ground, as there are several uses of ore risen in the shallow level above.

The Wildberg Great Consolidated Mining Company have received Capt. Champion's report, dated Jan. 11.—"At the West Mine, the Blumengang lode, driving east from the sink, will produce 9 tons of silver-lead ore per fathom. No. 1, upper stop, will produce from 3½ to 6 tons of lead ore per fathom. No. 2, middle stop, will turn out 6 tons of lead ore and 2 tons of copper ore per fathom. The lode, driven from the south cross-cut, is somewhat improved; it will now produce from 4½ to 5 tons of lead ore per fathom. The lode, driving west from the south cross-cut, will turn out 1 ton of lead ore per fathom. At the East Mine, Weiting stop, in the back of the 20, east of Michael's shaft, will produce from 2½ to 3 tons of lead ore per fathom. Dean's lode, driving east from Michael's shaft in the 15, will produce 4 tons of lead ore per fathom; the lode, driving west from Michael's shaft, in the old adit level, will produce 3 tons of lead ore per fathom. Carter's engine-shaft is sunk from surface 28 fms. 3 ft., and well timbered. The building of the cylinder loading is completed. The building of the boiler-house walls is progressing well. The slating of the engine-house roof will be completed by to-morrow, the 12th inst. The building of the calcining furnaces will be completed by Wednesday, the 17th inst. If the weather does not interfere, the whim at the Blumengang shaft will be in course to work in a few days. Our surface works have progressed well during the week."

The Liberty Mining Company have received advices from their resident director, dated Vancouver Mine (Virginia), Dec. 27.—"Mr. Smith having written you announcing my return, I deferred writing until I had looked into the state of things. Having now gone through the mine above and underground thoroughly, I am happy to inform you that Mr. Seidel has been most attentive in carrying out the written instructions I left when I quit for England, and indefatigable in his efforts to have the mine to serve the company in all respects. The run having been got through, he has been able to work tolerably clean ore, and the result is forwarded by the same mail that bears this, through Messrs. Adams and Co.'s express. There are 79 ozs. 14½ dwts. of refined gold; this is from about 750 tons of ore, worked in 35 days, by 18 stamps only; the cost on working account I estimate not to exceed \$800—say, 160t. The gold now forwarded has been obtained from ore, of which there are thousands of tons in the backs. I shall send in future all the gold made to England, and think that 30 per cent. will be the net profit on working account. I find all in first-rate order, except the engine, which must be repaired. It will not, however, be a long or expensive job, and will save 11. a day in fuel. The condensing system is de active, and the valve requires examination. I think it better to do this now than wait until the additional stamps shall have been erected. With this work I shall proceed forthwith, and hope to make rapid progress. The stamps and the tramways are the only surface dead work remaining to be done. All hands are away now for the Christmas holidays. Soon after the 1st proximo I will write you fully, detailing the next year's plan of operations. Your letter, containing an order for 1000t., duly arrived this morning."

The New Granada Mining Company have issued a statement to their shareholders, in which they observe that they have received the Frontino account of working expenses for October—the first month in which they have been able to see with tolerable clearness the comparison between working expenses and produce for that mine; or, in other words, what profit may be calculated upon for a month's working. The total produce of the two mines, for October, realised \$284. 0s. 3d.; of this, Frontino produced 510t. 16s. 4d., the result of 30 stamps working about half-time, the mine expenses for the same period being about 280t. The Bolivia Mine produced 3174. 3s. 11d., with an average of 15 stamps; and although the precise account of this mine has not yet arrived, the directors have reason to believe that the comparison of working expenses and produce will be as favourable as at Frontino. With reference to the financial position of the company, the directors state that the capital now in hand is about 5000t., which they consider sufficient for carrying on the business of the company, without making any call upon the shareholders. The directors confidently expect that the results of the workings will prove highly satisfactory."

Mr. James M'Arthur, of Sydney, has published a proposal for working a portion of the Turon auriferous vein. After dilating on the futile attempts hitherto made in New South Wales, and showing, from assays made by other companies, that gold exists, he furnishes statistics, showing that by economy, and the use of proper machinery, large results can be obtained, being nearly a return of 50 per cent. on the capital expended. He mentions his experience, derived in many instances from the results published in this Journal, and speaks favourably of the machinery of Messrs. Drew, which would be used with Smith's amalgamator; at the same time, he states that if Dr. Collyer's machine was used, though at an increased expenditure, these would be avoided. Mr. M'Arthur has long resided in the colony, and his opinions are deserving of some notice, combining as they do practical knowledge with personal experience; and as at the present period it may, perhaps, be considered inopportune to introduce any new project for working gold quartz in Australia, there is no question but that Mr. M'Arthur's proposal is worthy of the attention of all those interested in gold mining in that important colony.

The Gold Mining Share Market continues dull. The only transactions officially announced during the week have been in Colonial Gold at ½, and South Australian at 1½. The closing prices for other shares were—Anglo-Fris, ½; Anglo-Californian, ½; Australian, ½ to 1¼; Carsons Creek, ½ to ¾; Great Nugget Vein (registered), ½ to ¾; Marikita, ½ to ¾; Nouveau Monde, ½ to ¾; Waller, ½ to ¾; West Mariposa, ½ to ¾. The following quotations are merely nominal:—British Australian, ½; Lake Bathurst Gold, 1-16 to ¼; Australian Consols, ½; London and Virginia, ½ dia. to ¾; L'Algie d'Or, ½.

In Miscellaneous Shares, the market has been very flat throughout the week, and some of the land shares have considerably declined. The unfavourable report issued by the Australian Agricultural Company have depreciated them 2½ to 3½, and they have been dealt in as low as 32½; no transactions took place yesterday, and the closing price was marked 33½ to 34½. Peel Rivers were flat, remaining without alteration at 2½ to 2¾. Shares changed hands yesterday in South Australian Land at 35½, and Van Diemen's Land at 12. The closing price of Crystal Palace was 2½ to 3; Netherlands Diam. ½ to 1¼; North British Australasian, ½ to ¾; Scottish Australian Investment, 1½ to 2; ditto, New, ½ to ¾ prem.; Electric Telegraph, 17 to 18; Submarine Telegraph, scrip, ½ to 1; ditto, registered, ½ to 1. Bank shares have been very firm, and generally shown an upward tendency. Considerable amount of business was done yesterday, shares changing hands in Australasia at 80½; English, Scottish, and Australian Chartered, 15 to 14½; London and County, 35½; London Joint-Stock, 30½ to 31; London and Westminster, 43; Union of Australia, 66½ to 66½. In other securities of this description, the closing prices were—Chartered Bank of Asia, 1 to 1½; London Chartered Bank of Australia, 21 to 21½; New South Wales, 34 to 35; Oriental Bank Corporation, 37 to 39; South Australia, 39 to 41.

In Iron and Coal Companies, the transactions are still very few. Portland Iron were done yesterday at 2½; and British Iron, on Wednesday, at 5½ for account. For other undertakings, the nominal closing prices are as follows:—Blancavon Iron and Coal, 5 to 7; Rhymney, 22 to 24, ex div.; ditto, New, 5 to 7, ex div.

The Duston Iron Ore Company have been officially received on the Stock Exchange. The committee being perfectly satisfied that the necessary requirements were fulfilled, not the slightest opposition was offered. We have been informed that the works are being vigorously prosecuted.

The Glamorganshire Coal and Coke Company have convened their ordinary quarterly general meeting for Monday next. The meeting will afterwards be made special, for the purpose of considering the propriety of making a call, and on other important business.

The Britannia Gold and Copper Mining Company have called a meeting for the 29th inst., to receive a report from the committee of management.

The Marikita and New Granada Mining Company have convened an extraordinary general meeting for Friday next, for the purpose of considering the expediency of authorising the directors to borrow the sum of 20,000t., on such terms as may be then agreed upon, or of considering any other measures for providing for the payment of the purchase money of the Furner Mines. Mr. G. D. Keogh will be present as a director, and the room of Mr. G. Ward, who has resigned.

The Moselle Mining Company have announced the first quarterly meeting for Thursday next, to pass the statutes and rules, to elect directors, register shares, and for ordering generally the affairs of the undertaking.

The Australian Agricultural Company have convened their annual meeting for Friday next.

The dissolution of the Australian Freehold Gold Mining Association, under the Joint-Stock Companies Winding-up Act, is to be considered on the 30th inst.; a petition to that effect having been presented to the Master of the Rolls by Mr. John Hugh Jones.

The New York Crystal Palace has at length passed into the charge of a receiver, legally appointed to liquidate its liabilities of 40,000t.

The arrivals at Swansea include, from St. Malo, 555 tons of silver ore.

SCOTCH PIG-IRON TRADE.

Selling prices and cost of production in 1854:—

	Selling price.	Cost of production.
January	76s. 1d.	60s. 0d.
February	77 9	60 0
March	77 8	60 0
April	79 4	60 0
May	85 2	60 0
June	88 8	60 0
July	84 10	60 0
August	82 7	60 0
September	81 4	60 0
October	81 4	60 0
November	71 9	60 0
December	67 4	60 0

The colliers and miners' wages throughout the year have been at the high rates of 5s. and 6s. per day; lordships and railway dues, interest, &c., were stationary. The costs of production have, therefore, been uniform, and are deduced from the following data:—

32 cwt. of blackband ironstone, at 20s. per ton	£1 12 0
45 cwt. of splint coal, at 6s. per ton	0 13 3
16 cwt. of dress, at 2s. per ton	0 1 8
7 cwt. of limestone	0 1 9
Labour at smelting-works	0 5 0
Sundries, inclusive of horses	0 3 0
Interest on capital	0 3 4
Cost of producing 1 ton of pig-iron	£3 0 0

The publication of the second of Mr. CURLE'S STATISTICAL TABLES OF MINING PROGRESS is unavoidably postponed until our next.

LEAD ORES.

Mines.	Tons.	Price per ton.	Purchasers.
Egnair Mwyn	30	£12 7 6	Newton, Keates, & Co.
Thomas's United	20	£18 5 0	Walker, Parker, & Co.
Keswick	50	£12 0 0	Cookson and Co.
Wheel Wrey	46	£7 11 0	Walker, Parker, & Co.
ditto	26	£5 0 0	Sims, Wiliams, & Co.
Taliesin	30	£12 11 0	Sims, Wiliams, & Co.

BLACK TIN.

Mines.	Tons.	Price per ton.	Purchasers.
Wh. Kitty (St. Agnes)	4 7 1 3	£24 0 0	£270 6 10—Bisbee.
ditto	0 6 1 6	49 0 0	18 8 18—ditto
Wh. Kitty (St. Agnes)	5 4 0 8	£24 0 0	£233 0 6—Bisbee.
ditto	0 10 2 12	31 10 0	27 6 3—ditto
East Wheel Vor	0 10 1 23	£27 15 0	£30 3 8—Mellanser.
ditto	1 15 1 26	£26 10 0	94 11 8—ditto
ditto	0 17 1 13	28 0 0	33 0 7—ditto
Polberro	19 0 0 0	£24 7 6	£123 2 6—Daubus, &c.
ditto	18 0 0 0	£1 7 6	118 15 0—Enthoven.
ditto	6 0 0 0	£1 10 0	387 0 0—ditto

SALE OF COPPER ORES.

In last week's Journal, there was an error in the Ticketing Paper of 2 tons in Freeman's purchases of ore; and another in the amount of English and Australian Company, 2055t. 13s. 9d. instead of 2555t. 13s. 9d.

In the Journal of the 6th January, the purchases by the Copper Miners' Company was in the Ticketing Paper 1013t. 3s. 0d. instead of 1013t. 3s. 0d.

Mines.	Tons.	Price.	Amount.
Mines Royal Company	165 0 0	£122 2 6	
Vivian and Sons	442 0 0	298 2 11	
Freeman and Co.	442 0 0	235 17 0	
Grenfell and Sons	410 0 0	2080 13 6	
Crown Copper Company	18 7 0	315 6 8	
Sims, Wiliams, Nevill, and Co.	318 14 0	3238 8 6	
Williams, Foster, and Co.	842 17 2	5799 19 11	
English and Australian Company	403 3 2	2535 13 9	
Mason and Elkington	329 0 0	2457 10 0	
F. Bankart	162 0 0	1643 3 0	
Copper Miners' Company	497 10 2	1974 13 9	
Total	4278 0 0	£36,781 10 6	

COPPER ORES.

Sampled December 27, 1854, and sold at Swansea January 16, 1855.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	75	12½	£12 12 0	Cobre	82	14	£14 2 0
ditto	15	7¾	76 3 6	ditto	56	24½	25 10 6
ditto	81	13½	13 15 6	ditto	54	24½	25 1 0
ditto	80	13½	13 16 0	Kapunda	55	25	26 16 0
ditto	78	13½	14 1 6	ditto	52	25	27 3 6
ditto	12	15½	16 8 6	ditto	51	25½	27 0 0
ditto	9	70	74 1 0	Ballymurnagh	50	5½	4 13 6
ditto	115	12½	12 11 0	ditto	18	34	2 18 0
ditto	91	12½	12 8 6	Cooheen	24	7½	7 9 0
ditto	73	12½	12 6 6	ditto	30	7½	7 18 6
ditto	42	13½	12 15 0	African	48	34	34 10 0
ditto	10	14½	15 8 0	Molland	30	7½	7 9 0
ditto	86	13½	14 5 0	Latter Mine	7	6½	6 8 0
ditto	83	14½	14 0 0	Copper Slag	7	10½	10 1 0

TOTAL PRODUCE.

Cobre	1041	£16,765 18 0	African	48	£1761 12 0
Kapunda	158	4284 2 0	Molland	30	223 10 0
Ballymurnagh	68	285 19 0	Latter Mine	7	43 15 0
Cooheen	54	609 6 0	Copper Slag	7	70 7 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Mines.	Tons.	Amount.
Copper Miners' Company	156	£1765 10 0
Freeman and Co.	159	1863 9 0
Grenfell and Sons	243	428 14 0
Sims, Wiliams, Nevill, and Co.	95	3076 4 0
Vivian and Sons	442	4280 4 0
Williams, Foster, and Co.	280	3774 16 6
Mines Royal Company	98½	1255 8 0
English and Australian Copper Company	103	1248 5 0
Mason and Elkington	76	2305 18 0
Total	1413	£24,024 9 0

Copper ores for sale January 30.—Cobre 66, 56, 54, 48, 59, 57, 45, 63, 46, 16, 96, 91, 74, 58, 43, 103, 90, 80, 72, 63, 62, 60, 20—Knocknahan 74, 50, 2, 1—South African 1.—Total, 1700 tons.

AVERAGES.

	Produce.	Price.	Standard.
British	7½	£7 8 6	£129 4 6
Foreign	17½	18 5 6	117 3 6
Sale.....		16½	£17 0 0
Totals—British, 196; Foreign, 194=1413 tons (21 cwts.)			£117 16 6

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

MINING IN IRELAND.—SIR: Your Dublin correspondent does not regret more than I do the paucity of material with which I was furnished in regard to Irish Mines. The truth is, I relied upon your correspondent himself to furnish me with particulars, well knowing no one could do it so simply, or so well. I confess I am disappointed at not receiving any reply to my letter, written to him two months ago, and am afraid now that it never reached him. With regard to the Lackamore Mines, your correspondent doubts the correctness of my returns, and states, from his own researches, the ores sold since 1849 have amounted to 30955. 2s. 11d. The returns, however, given in my Review date from four years ending in 1849, and which, from a printed document now before me, I find thus given:—Four years ending 1849, 775 tons, 72187. 10s., average produce 11½; 1851, 811 tons, 57546. 10s. 6d., produce 10½; 1852, 569 tons, 47831. 15s., produce 9½; 1853, 578 tons, 24151. 5s., produce 11½; 1854, 119 tons, 10317. 10s., produce 11; 1855, 124 tons, 5411. 8s. 6d., produce 10½; 1856, 69 tons, 7951. 2s., produce 14½; 1857, 123 tons, 11647. 15s., produce 10½; making a total, in addition to the returns from 1849, of 3781 tons, 33,409. 15s., and an average produce of 10½, as stated in my Review.—J. Y. WATSON: St. Michael's-alley, Cornhill, Jan. 17.

POLTIMORE MINES.—SIR: It is stated in your report that Mr. Cooper said "that a call would be made at the next quarterly meeting." Is this a mistake? The committee state that "the cost for the next three months, including 3000. outlay for stamps and crushers, will be 12000., whilst there is a balance in cash and securities of 35581.," so that no call can be necessary. If, as Capt. Floyd states, one level is worth 100. per fm., a bunch of ore elsewhere 500. per fm., and men driving at 1s. 6d. in 11., I can only say the Poltimore copper will soon be gold.—R. D.: Jan. 15.

GOLD MACHINES.—SIR: "A. D.," who enquires about Berdan's gold machines, in your Journal of last week, will direct a note to "J. B.," 157, Fleet-street, he will have a communication on the subject that will be of advantage to him.

STAMPS BUILDING—DUNDEE MINES.—SIR: Being a native of Cornwall, and hearing of a new model stamping machinery in Dundee, I was very anxious to see it; but, to my surprise, Mr. Walker, of City-road, London, the engineer and manager of this mine, has erected a stamp and wheel with 14 heads. The stamps are worked with belts, which are a total failure. The captain condemned the principle, as I was informed, and got in disgrace with the committee, for telling the truth. I have had some experience in erecting stamps in Cornwall, and several mines in Ireland, but such as Walker's could never answer. I regret that parties concerned in mining should be led so much astray as to erect such a machine; even the stamps' house is glazed with large windows, which we cannot see in Cornwall in mines which are paying good dividends.—J. DOWD, Cornish mechanic: Golden, near Skibbereen, County Cork, Jan. 15.

A HINT TO GOVERNMENT SHAREHOLDERS.—Holders of shares in this mine, who do not reside in the district, should not be alarmed at a few calls for the proper bringing out of the mine. There appears to be an absolute certainty of plenty of ore when the shaft is down deep enough to get at it, which, however, will take about five or six months. Some shares recently thrown on the market were, I know, purchased by persons in the locality.—INVESTMENT.

Mr. Evan Hopkins's "Mines and Mining" will appear in our next; also the paper read at the Geological Society on Wednesday.

BERDAN'S MACHINES.—SIR: Your correspondent, "A. D.," asks if these machines are anywhere in successful operation. They were tried by the M'ulloch Gold Mining Company, and the North Carolina Transportation Company, at Grass Valley, California; also at the Castle Dinas, Virtuous Lady, Poltimore, Penman, and many other mines in Great Britain. At this moment, however, not one of these are at work. The best ever claimed for the machine by the proprietors was the power of reducing 4 cwt. of ore per hour, which had to be previously reduced to a gravel size, by the aid of stamps or Cornish rollers. Dr. Chilton, of New York, whose certificate was published by the Berdan Company, says:—"In using Berdan's machine I would advise the addition of shaking tables, in order to save the lost mercury and gold."—QUARTZ ROCK: Jan. 17.

GOLD MACHINES FOR THE COLONIES.—SIR: Will you allow me to return my thanks to Mr. M'Arthur for his interesting communications with reference to the Australian colonies, and the development of their mineral resources? I hope he will succeed in his object. There is, doubtless, a fine field opened in the Australian colonies for legitimate enterprise, if judiciously managed, and not ruined by London jobbers and imprudent speculators. However, knowing the colonies, and the colonies as we are, I do not believe any good can be done there by what is called London management. Everything must be managed in the colony, but supported and assisted by English capitalists. We require a new system of uniting the latter with the former, to do any good in the colonies.—A. D.: City, Jan. 18.

POLTIMORE MINING COMPANY.—In your report of this meeting, in last week's Journal, a mistake is made in my name; it should be Hensley, and not Hemalle.—W. HENSLY: Marazion, Jan. 15.

COCKS AND CULIAGA MINES.—SIR: I presume your correspondent, "Mediator," has some good ground for the statement made by him in his last letter, "That if prompt and speedy measures are not taken, the shareholders will discover themselves in difficulties which they will find it impossible to surmount." Now, this demands immediate attention. Who will thus complicate their interests, and what are the measures to which he refers? There is one whom he adverts to, I ask, is it possible? I envy not the feelings of that man who would thus deal with such properties and interests, and who would seek to involve the whole in utter ruin. Do, Mr. Editor, perform the promise you gave to your correspondents some time ago, to take up the subject, and show the present condition and capabilities, and the probabilities of the future in reference to these mines. Some things have been laid before the public by your various correspondents,—the immense value of the properties, and their almost certain productiveness under proper management; the state of the direction, a parallel to which I should think can hardly be found; and the cause of the unnatural depression of the shares in the market. I have no wish to agitate; but it is really a case that demands the most energetic measures on the part of all concerned. The only consolation I have in connection with it, is that there appears by the letters inserted in your Journal of late some considerable attention given to the matter in many minds, which I most sincerely hope will not be allowed to die out, and which may lead to a just and satisfactory settlement of all the interests involved.—A SHAREHOLDER.

SIR.—Can any of your correspondents inform me if a committee can forfeit shares under the act-book, without the consent of a general meeting, called for that purpose?—A SUBSCRIBER: London, Jan. 15.

WELSH POTOL MINING COMPANY.—The communication of "Scrutator" is not adapted for publication in our Journal: neither can we admit the correctness of the writer's assertion, that we are not sufficiently watchful in protecting the public by commenting upon accounts put forward by interested parties. As the subject of "Scrutator's" letter has, however, formed matter of comment by other correspondents, we may allude to the principal points, that the parties concerned may have an opportunity of answering them. In drawing attention to the accounts of the Welsh Potol Mining Company, our correspondents quote the statement inserted in the Mining Journal of last week, showing the balance in favour of the mine as 55571. 2s. 3d. Mr. Wilkinson, the purser and managing director, does not set out the amount of his salary, but takes credit for 18921. 1s. 7d.; whilst the sum of 36. 1s. 1d. is charged for the company's interest, and as the company has been charged only 2000. he considers that item must have been much larger, if they had sold ore to the amount of 42544. 17s. 2d. Probably we may refer more fully to the communication in our next: while, had the letter been written in a more temperate spirit, it should have appeared entire in our present Journal.

"Gold Seeker."—Mr. Harris, who is experimenting upon gold ores in North Wales, can give you the information you require; his address is Tyny Celyn, near Dolgelly. **THE POLTIMORE MINING COMPANY.**—SIR: I had expected to see in your last week's Journal the prospect of some benefit accruing to the shareholders at large in this company from the committee of enquiry's scrutiny into the management of it. It is impossible, therefore, to express my surprise at finding that this committee of enquiry has taken the very first opportunity of entering into the committee of management, accepting as their chairman the very one under whose negligence and general mismanagement the company's affairs have been committed. Scrutator, gentlemen, therefore, who formed this committee mean to regulate these charges against the management? or, do they intend to allow grave suspicions of their own integrity in the matter to be entertained? "Chickens will out," says the Chinese proverb, and I recommend the committee to look to it. It must be purged from past deformity before the public will invest any further capital on its faith, however highly reported by me; since reports, be it remembered, have already cost the public something approaching to fourscore thousand pounds—returns!—A RECENT SHAREHOLDER: London, Jan. 18.

A FORTWING WOOLWICH REMINDER.—SIR: In the summer of the year 1853, when I, for the first time, appeared before the select committee of artillery officers at Woolwich, on the subject of my elongated expanding shot, derived from the Malay expanding arrow, the late General Millar being one of the members, and considered at the time a very scientific officer, said to me, with a look and manner as if to sink me into the earth, "Mr. Norton, you make experiments for your amusement, and then come before us to know our opinion of them." I replied, with an air of surprise, "I do; and if by my experiments I can add to the power of the armaments of England, I shall be proud and happy for it." With such official objections as this, can it be wondered at that our officers generally are so far behind the officers of continental armies on the various subjects of military science?—J. NORTON: Queen's Hotel, Liverpool, Jan. 18.

NOTICE TO SUBSCRIBERS.—The Journal may be obtained of any bookseller or news-vendor in the kingdom, price 6d. weekly, or 17. 6s. per annum. Although we would recommend the subscription to be made by these means, if there is any difficulty in obtaining it through an agent, we supply it direct from the office, on receipt of a post-office order in favour of Wm. Salmon Mansell, as acting for the proprietors. As regards foreign subscribers, it is necessary that the amount for postage payable in England should be added, and the remittance made by draft on demand on a house in London. We give the amounts to be added for some of the principal countries, for their rates:—Italy and Portugal, 8s. 8d.; Holland, 4s. 4d.; other parts of Europe require no postage. As, however, the postage payable on receipt of newspapers sent through Prussia is exorbitant, when transmitted from our office, we would advise subscribers in those parts to apply at the post-office in their respective districts, by which means they will be supplied on payment, in advance, of the subscription, together with a small percentage thereon (usually 10 per cent.), which covers the cost of transmission. In France, the amount payable on receipt is 4 cents. The postage to the United States, British North America, Australia, New Zealand, &c. &c., Foreign West India, California, and Mexico, 6s. 6d.; Chili, 17s. 6d. (other parts of South America free). All foreign subscriptions must be paid in advance, to ensure the regular transmission of the Journal; but if the subscriber is desirous of discontinuing his subscription, it is absolutely necessary to give notice of the same, otherwise the subscription continues.

We have particularly to request that subscribers and others, in paying accounts, will send cheques or post-office orders, in preference to postage-stamps.

MARY ANNE MINE.—"A Constant Reader" draws attention to the management of this property, but states, at the same time, he is unacquainted with mining operations. His principal objection appears to be, that the management is too much concentrated—this is his only complaint; and, probably, if he were to apply to the committee, he could obtain all the information he desired. We would recommend this to be a judicious course, previously to his rashly rushing into print, and making insinuations, which might be difficult to substantiate.

"E. B." (Lincoln).—The information, in fact, is supplied in the letter of another correspondent. We believe the workings have been delayed by the machinery not being in working order.

NANTLE VALLEY SLATE COMPANY.—"A Shareholder" had better apply to the secretary for the particulars he requires.

GREAT GRANITE MINING COMPANY.—SIR: I observe in your last Journal the report of a meeting of shareholders in this mine, and which appears to have been called by the auditors for sundry purposes—but one is said to be the most prominent—that of calling in a public accountant, to assist the auditors. Long before such meeting was convened, I suggested that course, and for my own protection I had resolved to obtain the assistance of some able man. I will not discuss the merits or object of the meeting so called by the auditors, but would merely observe, that had I been requested to convene a meeting of the shareholders for any specific object set forth, I would have done so. I see that some shareholder who attended the meeting took the liberty of charging me with rather rough usage towards the shareholders. I must persuade myself that that gentleman is both a stranger to the office and myself, or he never would have talked about my riding "rough-shod over the shareholders." I beg to say, it is neither my disposition nor practice to ride over them; and all must admit that I am at all times ready to treat every applicant with courtesy and respect; and to afford them the fullest information in reference to the mine, its prospects, and accounts; and, whatever be the opinion of discontented shareholders, I shall continue so to do.—E. C. MANUEL: Austinfriars, Jan. 18.

LEAD ORES.—The quarterly return of sales by the different mines will be published in our next week's Journal.

Works published at the MINING JOURNAL office, 26, Fleet-street, London:

GEOLOGY AND MAGNETISM. By EVAN HOPKINS. 16s.
GOLD ROCKS OF GREAT BRITAIN. By JOHN CALVERT. 10s. 6d.
WINNING AND WORKING OF COLLIERIES. By MATTHIAS DUNN. 12s. 6d.
SUPPLY OF WATER IN SWANSEA. By MICHAEL SCOTT. 10s.
PROGRESS OF MINING IN 1853. By J. Y. WATSON, F.G.S. 1s.
STATISTICS OF THE MINING INTEREST FOR 1853. By W. H. CUELL, Esq. 6d.
GLOSSARY OF ENGLISH AND FOREIGN MINING AND SMELTING TERMS. 2s.
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BRITISH MINES CONSIDERED AS A MEANS OF INVESTMENT, WITH PARTICULARS OF THE PRINCIPAL DIVIDEND AND PROGRESSIVE MINES IN ENGLAND AND WALES. By J. H. MASON, F.G.S. 3s. 6d.; by post, 4s.

* It is particularly requested that all communications may be addressed—
TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

Post-offices orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL Railway and Commercial Gazette.

LONDON, JANUARY 20, 1855.

We alluded, in our last Journal, to a very important publication, presented to both Houses of Parliament by command of Her Majesty, and containing the reports of the several Inspectors of Coal Mines to Viscount PALMERSTON, Secretary of State for the Home Department. The volume contains the official report of Mr. MATTHIAS DUNN, for the counties of Durham, Northumberland, and Cumberland; of Mr. JOSEPH DICKINSON, for his district, comprising Lancashire, Cheshire, and North Wales; of Mr. CHARLES MORTON, for Yorkshire, Derbyshire, Nottinghamshire, and Warwickshire; of Mr. THOMAS WYNN, for the district comprising Staffordshire, Worcestershire, and Shropshire; and of Mr. HERBERT MACKWORTH, for the south-western district, including South Wales. Messrs. DUNN, DICKINSON, and MACKWORTH's reports comprise the last half-year of 1852, and the entire of 1853; while that of Mr. MORTON is confined to the year ending 30th of June, 1852; and that of Mr. WYNN, to the last half-year of 1852, and first half-year of 1853. We have also a report from Mr. WILLIAM LANCASTER, with respect to Scotland, for the half-year ending the 31st of December, 1852; and a joint report of Mr. LANCASTER and of Mr. ROBERT WILLIAMS, for the same country, for the year ending the 31st December, 1853. As uniformity is essential to the due administration of every department, and as these reports, appearing at the present moment, preparatory to the assembling of Parliament, are probably intended as a note of preparation for the long-promised legislation, we confess it does seem strange, so long as it remains unexplained, that some of the reports, if regularly furnished, should be now withheld. The inspectors whose reports have been excluded owe a duty to themselves, to satisfy the public that the default did not rest with them, and to trace the cause to its proper source; otherwise, suspicions may prevail that influence led to the suppression. There will be little dissent from the proposition that, if any were to appear, all should be published; and while some interested parties may, perhaps, attribute the omission to slackness in the officials, we, who look to the ample interval which elapsed, are disposed to afford the inspectors, who appear to have been trifled with, an opportunity of vindicating themselves.

To the careful readers of this Journal, and to those who have attentively studied the evidence given by some of the inspectors before the select parliamentary committee, which we had epitomised, there will be found but little novelty in these reports, although we are free to admit that they are crowded with circumstances of grave moment, and information of much interest. Accidents in collieries, of course, form a prominent position; with the insufficiency of enquiries before coroners' juries, the defective nature of which we have so repeatedly arraigned. It is our duty to point attention to a glaring defect in modern legislation, which, we believe, has hitherto passed unnoticed, and which strikingly illustrates the absurd and imperfect system on which our laws are too often framed. It is notorious that we have now, in the various coal-field districts of Great Britain, inspectors, assumed to be selected for their competency, nominated by the Government, and paid by the State, an important portion of whose defined duties it is to attend all inquests on casualties resulting in collieries. The wisdom of the Legislature, in the 6th section of the last Act, has provided that, unless there be some person present on behalf of one of Her Majesty's principal Secretaries of State, to watch the proceedings at such inquest, two days' notice of holding an adjourned inquest is to be sent, through the Post Office, to the Secretary of State, of the time of holding the same. There is no obligation whatever on the coroner to give notice to the local inspector, the man whose duty it is to attend; and as we can readily understand the crowd of official business in the Home Office, we have this palpable absurdity in the law requiring the notice to be forwarded by letter to London, and to be thence forwarded to the inspector, occupied with his other important business in the country, who, of course, almost invariably receives it too late. We appeal to common sense whether it is possible to imagine anything more preposterous—and the passing such a provision as this was termed legislating for the collieries.

We have in these reports a reiteration of the tragic details which we have so repeatedly deplored. Sixty-one men killed by the Nittahill explosion, in Scotland, the gas from the waste being fired upon their naked lights; 28 men killed at the Washington explosion; 23 at Hepburn; 36 at Coppel; and 68 at the Middle Duffryn explosion, Aberdare. In addition to these, and many minor catastrophes from fire-damp, we have 27 lives lost at Gwendraeth, in South Wales, from hoing into some old drowned workings; and we are informed by the inspector that it did not appear that any systematic boreholes had been carried on to discover the exact position of the waste, which precaution was essential in all such cases. We are assured, in this volume, that explosions are not so extensively fatal as falls of roofs, although they come upon the public mind with more appalling force, because the calamity is sudden, and attended with numerous deaths at the same instant. Although it is impossible to divert coal mining altogether of danger from this cause, where the pillars are interfered with, and the strata broken, still the danger is considerably increased where contractors are employed, or where common colliers are made to bring down from the pit-head, or set their own timber, or where the timber provided by the owner is either too scanty, or is furnished of too small a diameter. A strong objection lies to contractors in their having no permanent interest in the mine, and their necessarily seeking by every little saving to diminish the cost of production, whilst the chief owners think that they are not personally accountable. It is, with becoming candour, admitted that the examinations of practical and scientific persons before parliamentary committees, although printed at large, as also the reports of the Government Inspectors, are not accessible to the working colliers, who have no other specific caution for their conduct ex-

cept their own crude knowledge, and the printed regulations of certain collieries as to the safety-lamp, so that great ignorance prevails as to the management of mines, and the most approved modes of ventilation. We quite agree that the cumbersome form and incongruous nature of parliamentary documents disqualify them for the working classes, even if they were accessible. Our columns are too crowded with a vast variety of general matter to permit our devoting our space to the subject, but we venture to suggest that the leisure of an inspector could not be better or more beneficially employed than in epitomising the material points, and laying the results of the large mass of evidence already given before the colliery population in a condensed, intelligible, and popular form. The adoption of such a course, and the cheap but universal circulation of such a tract, would remove the ground of complaint prominently put forward by Mr. DUNN, in his report (p. 7), and entitle the compiler to the gratitude of the community.

The fatal consequences of explosions necessarily occupy space in these reports. Mr. DICKINSON, having in a previous report stated that the popular theory which assigned 70 to 75 per cent. of the loss of life resulting from explosions to suffocation by after-damp, was borne out only in isolated cases, such as some of the great explosions, and was too high for a general average, reports that the whole of the deaths within his district, now referred to by him as having occurred from explosions, are traceable to burns and violence, no life having been lost by after-damp. Temperature, as well as atmospheric pressure, appears to exercise an important influence on ventilation, and as their combined effects may simultaneously act against ventilation, there is, consequently, at these critical times, apparently a greater liability to explosion; but although there is, perhaps, an increase of accidents by explosions with the rising temperature from spring to summer, there does not appear to be any safe rule deducible from experience to guide us conclusively upon the subject. The relative excellencies of the steam-jet and furnace systems of ventilation, of course, come under review; and the inspectors are far from assenting to the conclusion at which the parliamentary committee, over which Mr. CAYLEY presided, in 1852, arrived, when they were "unanimously of opinion that the steam-jet is the most powerful and, at the same time, least expensive method for the ventilation of mines." The expression of their own opinions, the result of their practical experience, in opposition to such authority, is highly creditable to the inspectors. We have Mr. DUNN boldly declaring that, as a general measure, it will not stand a comparison with the furnace, and that the conclusion which Mr. CAYLEY's committee had come to on that and several other subjects was erroneous, and unsafe for legislation. Mr. DICKINSON adds his opinion, that in ordinary circumstances, where economical and powerful ventilation is required, so far as his experiments show, the furnace system appears to stand unrivalled. Mr. MORTON, while he admits that exceptional cases might occur where the steam-jet would be a valuable auxiliary, did not think it advisable to urge its adoption in the collieries in his district, until the colliery proprietors had actually tried the furnace system, and found it inadequate. Mr. MACKWORTH states that the history of the steam-jet exhibits the errors which may be committed by relying on experiments on a small scale, for a great exhaustion, amounting to many feet of water may be caused by a jet of steam in a tube of small diameter, but the conditions to be surmounted in a colliery are essentially different. We have deemed it right to allude pointedly to this subject, as the Government furnished to the inspectors copies of the report of Mr. CAYLEY's committee, and required their opinions. It has been too much the fashion in Parliament to legislate upon the reports of select committees, and although the report in question purported to be unanimous, it was probably the production of some individual member; and we presume that, after this condemnation, it is not now likely to be adopted by the Legislature. We may, perhaps, find hope that the views and opinions of practical men will alone be entertained and embodied in any codified system of laws which may be passed for regulating the collieries of Great Britain.

The subject of the safety-lamp, and its proper use, have, of course, received attention; and it is urgently recommended that the lamps should in every instance be the property of the proprietors, and not of the men. We are pleased to perceive, by the report of Mr. DUNN, that printed notices, containing cautions as to their use, have been generally circulated amongst the workmen in collieries in the north of England; and we should be glad to learn that a similar system had been adopted in the other districts. Mr. MORTON notices an accident at the Balne-lane Colliery, Wakefield, of which Messrs. BARKER and CHILL are proprietors, in which two men, DAVID KIRK and GEORGE FIELD, were killed by an explosion of fire-damp, arising from the mesh of a Davy lamp being too coarse, having had only 529 apertures in a square inch, instead of 784, the number recommended by Sir HUMPHRY DAVY. We are not told whether this dangerous instrument, actually contrived for mischief, was supplied by the proprietors, or by the unfortunate victims; but as the workman is now by law punishable for his reckless or improper use of it, the Legislature surely ought to provide punishment for those who place such an instrument in inexperienced hands. Mr. MACKWORTH enters more into details on the subject than any of his colleagues, and we learn from him that, in his district, the safety-lamp is very rarely used in an explosive atmosphere; its almost universal employment being as a testing lamp, the presence of fire-damp being indicated by the elongation of, and the cap on the flame. As the degree of usefulness is the test of merit, the Davy lamp must, in Mr. MACKWORTH's opinion, still bear the palm; two improvements are, however, wanted—the emission of good light without a glass, and the more delicate or earlier indication of fire-damp. It is found, by careful experiments, that when the carburated hydrogen in air is reduced to 7 per cent., it no longer explodes, but exhibits an elongated cap on the flame, and that this halo continues until the quantity of gas is reduced to 3½ per cent., when it is no longer seen. Men are usually sent round in well-regulated collieries to ascertain by the cap on the flame whether any part of the mine is foul; and if the cap is not seen, the colliers are generally allowed to work with naked lights. In the rapid observations of firemen in currents of air, it may be fairly assumed that they do not perceive the halo, obscured also by the gauze, at a lower limit than when 5 per cent. of gas is present. The whole margin, therefore, that is interposed, by the common practice of collieries, between safety and explosion amounts only to 2 per cent., and this a decrease in the ventilation, or an increase in the discharge of gas, may very readily vary or destroy. To these circumstances may be attributed the origin of very many explosions. In nine cases out of ten, according to Mr. MACKWORTH, the safety-lamp is not used to work by, but merely as a test of the presence of fire-damp; but the surest method of checking explosions is to induce a much more general use of locked safety-lamps. We can scarcely imagine that Mr. MACKWORTH's district is exceptional; his observations are, therefore, entitled to general attention.

The propriety of introducing a system of insurance for persons employed in collieries against accidents of every description has not escaped notice. It is suggested by Mr. DUNN that it may be worked with simplicity and effect, if once made the rule of every colliery, similar to that which is practised in many great works in respect to education—namely, that every worker should contribute at least 1d. a week, to be deducted from his wages by the agent of the colliery. By an arrangement of this nature, which would not be felt, a fixed sum may be assured to the workman in case of personal injury, and to his family in the event of death. It is further very properly suggested that, in order to induce proprietors of collieries to adopt such a proposition, it ought to originate in the shape of a memorial from the men; and it is stated by Mr. DUNN, that he has reason to believe that employers would gladly accede, and he considers that it could not fail to be a great boon, for it would not interfere in the slightest degree with any other club or society, or with poor rates, or other money customarily paid by the proprietors. *Signé de Mr. DUNN.* On the subjects of education, and the social and general improvement of the colliery population, the reports appear to be, on the whole, satisfactory. While it is lamented that an amount of ignorance still prevails amongst the officers and labourers engaged in collieries, the establishment is strongly urged, by Mr. MORTON, of local artisan schools and libraries, where the principles of geology, mineralogy, chemistry, mechanics, and hydrostatics, as applied to mining, may be taught to the workmen; who, it is judiciously recommended, should be examined periodically as to their requirements, and if found worthy, should receive authorised certificates, to be afterwards shown to colliery owners as evidence of educational fitness to undertake the office of agent. Mr. MACKWORTH also presses the subject of education on our attention, assuring us that the want of it amongst the workmen and deputies is the most serious drawback with which he has to contend. We blush at the disclosure which he makes, that in his important district of civilised England "but a small proportion of colliers and deputies can read or write." The system of superintending viewers is the most immediate remedy that could be devised for effecting an important diminution in accidents, and we have Mr. MACK-

the authority that there is, in his district, a growing desire on the part of all concerned in the management of collieries to improve their works, and that the actual progress in safety and economy more than keeps pace with the development of its mineral wealth. The reports are, taken together, highly creditable to the industry, activity, and intelligence of the inspectors, and present to us a variety of interesting subjects—amongst them, admirable suggestions for legislative revisions. We regret that our limits will not permit us at present to go into detail; but, as the reports of the inspectors are in some instances illustrated by engravings of drawings and plans, carefully prepared, we strongly recommend the attentive perusal and study of the volume to those who feel interested in the progress of our coal mines, the most important source of our national greatness, and, if circumstances permit, we shall ourselves resume the consideration of the subject.

In directing attention to two communications, which appear in our journal of this day—one from Mr. HARRY SCRIVENOR, suggesting arrangements for procuring statistics of the iron manufacture, and the other from Mr. THOMAS STEPHENSON, on the subject of inspectors of coal mines, their qualification, and mode of inspection—we do not hesitate to express our entire approval of the objects proposed. We have lately in our journal tendered the tribute of our approbation to Mr. SCRIVENOR for a historical essay published by him on the iron trade, and noticed in laudatory terms his interesting paper, which recently formed a subject of discussion at the Society of Arts. Every suggestion proceeding from such a source is, therefore, entitled to the highest consideration; and while the parliamentary and public records of the country supply details of other trades; and while an arrangement to procure statistical agricultural returns is in progress, and indeed in operation in Ireland, it is not unreasonable to expect that the great metallic trade of the country should be similarly represented. Mr. SCRIVENOR has made the manufacture of iron in all its branches from the earliest period to the present time, when it has attained such vast dimensions, and acquired such national importance, his peculiar study; and if the varied interests embarked in two of the greatest and most opulent departments of our commerce, shall deem it advisable to organise a regular system, in order to procure correct information in relation to the coal and iron trades of this and other countries, it is impossible that the management could be confided to a more worthy or highly qualified representative, as general secretary, than Mr. SCRIVENOR. Mr. STEPHENSON, in common with very many in the community, feels that the past management of our coal mines is a reproach to the intelligence and philanthropy of the age. While we bear testimony to the improvement which begins to be felt under the present system of inspection, we will dissent from the opinion that it is insufficient for the present, and daily increasing, requirements of the coal mining property and population of Great Britain. In directing the notice of the noble head of the Home Department to the too limited arrangements at present in operation, Mr. STEPHENSON only expresses the opinion of the public, and, we believe, only repeats the views of the existing staff of inspectors. The Legislature appears very unwilling to approach the subject, and Mr. STEPHENSON has properly selected the press as the medium of awaking the attention of the Government to the urgent claims of the mining community, and we quite concur with him, that a union of practical coal mining knowledge with scientific education is an essential qualification in any future selections to be made for the appointments of mine inspectors. It is believed that a new mining bill, for regulating our coal mines, is in course of preparation, and will be submitted to Parliament during the approaching session, the recommendations so opportunely put forward will, we trust, obtain the attention they are entitled to in the proper quarter.

An important case on the law of cost-book mines was decided by Vice-Chancellor Wood on the 18th Dec. last—we allude to *ex parte* LAWTON, *the BIRCH TOR and VITIFER MINING COMPANY*, in which a petition presented by Mr. LAWTON, praying that the company might be absolutely dissolved, and its affairs wound-up under the provisions of the Joint-Stock Companies Winding-up Act, 1848 and 1849. The company had been formed in 1845 for working certain tin mines in Devonshire, and was carried on on the Cost-book Principle. The petitioner had become a shareholder in 1847 by the purchase of 30 shares, on which he had paid to the amount of 700*l.* Mr. SQUARE, the secretary of this company, a joint trustee of the lease of the mines, in October, 1851, applied Mr. LAWTON by letter of a resolution which had been passed at the last special general meeting of the company, by which it was resolved that the provisional agreement, dated the 7th July preceding, entered into between Mr. SQUARE, representing the company, and Messrs. G. KNIGHT, HUXLEY, and WILLIAM G. REED, should be confirmed. That agreement provided that the lease of the mines should be assigned to Messrs. HUXLEY and REED on certain stipulations.—1. That the assignees, or their nominees, should create a new company for working the same mines, in any number of shares not exceeding 17,000, at 1*l.* per share.—2. That 5000*l.* of the paid-up should be handed over in satisfaction of the interests of the existing proprietors—Mr. SQUARE undertaking to deliver up 1200*l.* of the previous concern consisted, in exchange for the same.—3. That 6000*l.* of the 17 shares should be converted into cash, and the proceeds applied in discharging the debts due on the mines, Mr. SQUARE further undertaking, in consideration of these two amounts, 6000*l.* shares, and 5000*l.*, deliver up the mines free of liabilities, and to produce satisfactory receipts, if required. It further appeared that in May, 1852, a notice had been sent to Mr. LAWTON that a meeting was to be held on the 4th June to arrange the accepting the transfer of the new shares, for payment of liabilities, and for settling the accounts. This meeting was adjourned; and in the following November a copy of certain resolutions passed at a meeting of the adventurers, held on the 25th of that month, and a statement of the accounts, was received by Mr. LAWTON. These accounts, on taking credit for 5000*l.* purchase money for part of the mines, showed a balance of 918*l.* due from the adventurers—to raise which sum it was resolved that a call of 1*l.* per share should be made. Mr. LAWTON had been present at that meeting; and in his petition he alleged that he was not satisfied with the statement of the accounts, or with the surrender of the shares of the old company; and he refused to pay the call, or to accept the transfer or the arrangement. Mr. SQUARE, on application of him, had, however, furnished Mr. LAWTON with a further statement of accounts, by which it appeared that there were liabilities still outstanding to the amount of 237*l.*; and that the sum of 388*l.* for arrears of calls due by Messrs. BAYLY and SQUARE, who had assumed the management. In April last, an action was brought against Mr. LAWTON at the instance of two creditors of the company to recover from him as a shareholder a sum of 63*l.* 16*s.* 6*d.*, of which proceeding Mr. LAWTON gave immediate notice to Messrs. BAYLY and SQUARE, and required to be indemnified by the company. The action not having been stayed, or the indemnity given, Mr. LAWTON presented this petition to have the company wound up under the Act for that purpose. In support of the petition, the very unsatisfactory state of the accounts relied on as entitling Mr. LAWTON to have the whole case investigated, and the affairs of the partnership wound up in the only way satisfactory to him under the direction of the Court, in pursuance of the winding-up statutes. The evidence brought forward to resist the prayer of the petition had failed to prove satisfactorily that the 5000*l.* had been expended for the legitimate objects of the company. Mr. LAWTON had not been a party to getting up the new association; he had, on the contrary, long refused to join it by accepting the proposed new shares, or by surrendering, transfer, or other similar dealing with his old shares, and was therefore, entitled to the relief he sought. The petition was opposed by the company, on an allegation that it was not competent for Mr. LAWTON to question the sale of the mine—that having been the act of the entire association, except himself, and, therefore, binding on him. The case was referred to the learned Judge, who, in the *Wheel Lovel Mining Company* (1 Macn. and Goz. 1), established that this form of company was an exception out of the 5th section of the Act of 1848; and as the co-adventurers in a cost-book mine could not sue for calls, it had been the universal practice in such associations to find a proprietor of the company who had a demand, to sue any adventurer making default in the payment of calls, for his debt. The alleged unsatisfactory state of accounts was denied; and it was insisted that the petitioner ought not to be permitted to put forward such a charge—first, because his evidence on the point was unsatisfactory; and, secondly, because he had had every facility offered to him of inspecting and examining the books; and because an offer had been made to him by his co-adventurers of submitting them to any accountant he might select to examine, adjust, and balance, which offer he had declined. On these and other grounds, it was strongly contended that a case had not been made out for the intervention of the Winding-up Act, and that the petition ought to be dismissed. The Vice-Chancellor, in delivering judgment, observed that

if the petitioner had rested his case on the facts that he had been sued by a creditor, and had not been indemnified by the company, his petition must have been dismissed, inasmuch as he had notice of the mode in which it was intended to work the mine, and of the sale in 1851, and had for three years taken no step in the matter. The case was, however, varied by what subsequently occurred, for the company could not compel the petitioner to take shares in the new company; and the former one must be held to be still subsisting, at least for the purposes of being wound-up. The accounts were unsatisfactory; for in the first that was rendered the company took credit for 5000*l.* received, or to be received; and in the subsequent accounts put forward, liabilities amounting to over 2000*l.* are returned as still due by the company. In the last account, credit was no longer taken for the 5000*l.*, which must be considered to have been paid, leaving large liabilities still outstanding; and this being distinctly averred, required explanation. Again, Mr. BAYLY, who appears to have assumed the entire management of the company's affairs, seems to have owed 300*l.*; and there are other circumstances deserving investigation. Under these circumstances, the petitioner has shown serious risk to himself on account of the outstanding liabilities; and the company not having satisfactorily shown that there are none such outstanding and undischarged, the petitioner was entitled to the order for winding-up. It must, however, be only on the terms of this not disturbing the agreement entered into for the sale of the old company in 1851; and the petitioner having agreed to this condition, the order was made accordingly.

Although dependent upon each other, yet it appears that both miners and smelters disagree; the one party states that the other, having larger capital, takes an unfair advantage, while the other, knowing he is necessary, affirms he receives nothing but a fair return, and challenges the complainant to better himself if he can. Both sides may be right, and probably each are wrong: it would be for the benefit of the public if they could come to a perfect understanding. How this desirable result is to be brought about we will not presume to say, nor offer any suggestions as to the means by which the Gordian knot is to be cut. We are told that the smelter receives from the miner something in the difference between the wet weight and the dry, that he buys his ores at the rate of 21 cwt. to the ton, and the assay is always made up to 100, while the copper sent to market is from 97 to 98, and in most cases less. We are further informed in order that the assay should be 100, that great waste occurs in the way of burning, &c., all of which, as a loss, falls upon the miner; and it has been stated that before the ores go into the smelting-works the smelter has a clear gain of 20 per cent.: we do not vouch for the accuracy of these figures, although they have been furnished by practical men, on whose judgment we could rely, but admitting that only half should be correct, it will be seen that copper smelting is a profitable speculation, not only here but likewise abroad, where the cost of fuel and materials is much enhanced. We are perfectly aware that no single mine in England could erect smelting establishments solely to reduce their own ores; and in many instances, could they do so, the period that would elapse before they could convert their ores into merchantable copper might prove a serious detriment to them, as far as they were financially concerned, under the present system.

We will not enter into the eventualities that probably would occur from their being producers, manufacturers, and merchants, thereby receiving the profits which the smelter now obtains in that manner, as well as from the ores, this being a question subject to many contingencies, that it would be bootless here to enter into. Our own opinion is, that no steps will ever be taken by the Cornish miner to alter the present system; too many interests are involved, and too many influences can be brought forward to check any onward movement. While all other pursuits have progressed, mining, though it has not retrograded, has remained stationary. Probably the School of Mines will induce a new generation to make those improvements, so long demanded, and so necessary; but until adequate education is afforded to the rising generation of miners, who will receive complete instruction both in mining and metallurgy, we fear that no change can take place. We dismiss the crude ideas of theorists as to whether smelting be profitable or not: experience has shown that, with proper management, mines can smelt their own ores, and that to a profit, provided they have produce enough to keep the furnaces at work. This has been done in Germany, Norway, Sweden, and Russia; fuel is dearer there than here, yet we are told our Cornish mines cannot reduce their ores without applying to Swansea. Data has been furnished to us of the expense of a smelting establishment, the quantity of fuel to be consumed, as well as labour cost, &c., showing that a copper smelting establishment is a profitable investment; but in this, as in all other commercial undertakings, organisation and efficient management, combined with economy, is necessary to ensure success. We must acknowledge this certainty; but at the present period, looking at the mining interest, we would not advise it should be carried out.

An application for an injunction on the part of Mr. STUBBS, of the EASTERN UNION RAILWAY COMPANY, to restrain that company from making a dividend amongst the ordinary shareholders, until he should be first paid an arrear of interest from July, 1850, to Aug., 1853, upon his 6 per cent. preference shares, came on before Vice-Chancellor Wood, on Tuesday, the 19th of December last. It appeared that by an Act of Parliament, passed in 1850, this company, which had been previously incorporated in 1844, for the purpose of making a railway from Colchester to Ipswich, was empowered to create new shares—the income of the company to be applied, among other purposes, to paying preference shares of 1849, and after them the ordinary shares of the company. The preference shares of 1849 had been created by a resolution of the company, in pursuance of the Eastern Union Railway Amendment Act of 1849; and the holders were guaranteed to receive 6 per cent. in perpetuity, with the option at the end of any six months within five years, of converting their guaranteed stock into the general stock of the company. The plaintiff had purchased 1213 of the preference shares, created under this resolution, to the amount of 24,260*l.*—a portion of a sum of 125,000*l.*, which the directors were authorised to raise by 25,000 shares, of 5*l.* each. By the further Amendment Act of 1850, the company were empowered to create new shares, to be called the Eastern Union debenture shares; and in 1853 a further Amendment Act was passed—the preamble of which stated, amongst other things, that, since the passing of the Act of 1850, there was no revenue, or income of the company, applicable to the payment of interest or dividends on the shares in the capital of the company; that a considerable time must elapse before any portion of its revenues or income could be legally applicable to the payment of interest, or dividends, on any of the preference shares, or ordinary share capital, and that in compliance with the desire of a large number of preference shareholders, the company were willing to redeem at par all the preference shares, paying in cash to the respective shareholders at the rate of 109*l.* for each share of the nominal value of 100*l.*, being with interest at 4 per cent. from the passing of the Act.

The plaintiff retired from the association on the 16th of Feb., 1854—having demanded and received redemption money for his preference shares, and 4 per cent. interest from the passing of the Act. He, however, also demanded payment of the arrears of 6 per cent. interest, which had previously accrued from July, 1850, to August, 1853, which the company refused to pay, alleging that he had received all that he was entitled to. He accordingly filed his bill claiming the arrear, and alleging that the directors had threatened and intended to pay out of the first moneys they should receive for the business of the company dividends to the ordinary shareholders, without paying the arrears claimed in respect of his preference shares by the plaintiff. The bill then prayed an injunction to restrain the directors from declaring any dividend on the ordinary shares or stock of the company, or otherwise out of their funds, until payment to the plaintiff and the other preference shares of the arrears of interest, or dividends, due to them respectively on such preference shares.

The plaintiff's application for an injunction was strongly resisted on the part of the company, on the ground, amongst others, that he was concluded by the redemption, and the acceptance of the 109*l.* for every 100*l.* share. The question mainly turned upon the construction of the Act of 1853, which compulsorily directed that the preference shares should be redeemed, and prescribed the mode of redemption. The Vice-Chancellor, after full argument, and referring to its various provisions, was of opinion that this Act left the question as to the right to the arrears of interest untouched, and that it could not have been intended that the payment of 109*l.*, as prescribed, for every 100*l.*, was to be in satisfaction of those arrears. The injunction, therefore, was granted, restraining the company from declaring any dividend in respect of their ordinary shares, or paying any dividend on such shares, without first paying and satisfying the arrear of dividend due to the plaintiff at the time of passing the Eastern Union Amendment Act of 1853 in respect of the preference stock. The order

was also directed to be without prejudice to any question as to the right of the plaintiff to any dividend from the date of the passing of the Act of 1853 to the actual time of the redemption.

Elsewhere will be found some remarks on smelting; we are, therefore, not about to enter into the abstract question of mining and smelting, but cannot forbear making some brief remarks on a letter signed "Verax," which appears in this day's Journal. A seat is vacant in the direction of the Cobre Copper Mining Company: our correspondent informs us that, to fill that seat, a gentleman will be brought forward, connected with some of the smelting houses in Swansea; and he imagines that this gentleman will be as unfit for his position as a carrier, or a freighter, or any one else, to conduct the affairs of a mining company.

Now, it is well known that at least two-thirds of the directors of mining companies have not the least knowledge of mining; and even those who do possess a smattering of mining knowledge, although they are powerful for any good, yet have the opportunity of doing an amount of incalculable harm. The Cobre shareholders should, therefore, hail with satisfaction that they are enabled to obtain the services of a practical man, even though he be a smelter. A smelter must have some knowledge of metallurgy and the reduction of ores, which, unfortunately, many of our miners have not. As for too many of the directors of companies, we will not presume to estimate their knowledge of either mining or smelting—being satisfied to say "nil." They may be able to investigate accounts, correct a balance-sheet, &c.—that is their vocation; but to understand the expenditure of a mine, the working, &c., we may presume that even bankers and Irish peers may be at fault.

The gentleman proposed to fill the vacant seat is a smelter: there is no fear that his smelting views will make him blind to his mining interest. It is a step in the right direction: if he acts conscientiously and honestly, as we have no doubt he will do, he will guard the company from the smelters' clique taking any advantage of them. The union of smelters and miners has long been desired, and we hail with satisfaction the idea that the Cobre Company intend to introduce a smelter on their board, convinced as we are that it will be the first step to join the two interests together which have hitherto been in antagonism, but which, for their joint welfare, ought to be in unity.

We have again to direct the attention of our readers to a communication on "Peat, as a Smelting Fuel," which appears in the second page of this day's Journal. Messrs. Gwynne and Co.'s statements are, indeed, of an extraordinary character, and well deserve the serious consideration of all interested in economical heat for industrial purposes. Those gentlemen having now drawn prominent attention to the vast resources of Ireland, will do well to turn to Wales, England, and Scotland, with their many islands, and show their capabilities in adding to our fuel-produce.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

JAN. 18.—The new year gives some promise of increased benefits to the monied interest of Dublin, from the advantages acquired by the telegraphic communication with London, Liverpool, Edinburgh, Glasgow, &c., and affording those facilities of communication and the transaction of business in a few minutes, when days were before required to effect the same end. There is no good, it has been often said, but that it is attended with an evil; and while we congratulate ourselves on the former, it is with the latter I would deal. A few words will, I think, render this self-apparent to my friends in the "Room" here, and it is to them I would more forcibly apply my observations. At present the time of holding "high Change," or when our brokers take their seats, is half-past two, and they retire at three, a fine of 6*d.* being inflicted for non-observance of the strict time of assembling. Too frequent is it that we find two-thirds of those assembled with their contract book and pencil without doing a single bargain. We have some half dozen houses (but which I will not particularise) who, I believe, do the principal, or five-sixths of the business, but which, it must be understood, is not done in the "Room," but out of doors. I do not mean by this to say that they are irregular in their proceedings, but it is the telegraph that does the business, and the principal transactions are done with London brokers. Let us just see how this works, and compare it with the system observed here. I have already said we have only half an hour at the close of the day, when it is too late, even by telegraph, to communicate with London, so as to secure London prices, or any bargain on your Stock Exchange. First of all you must consider we are 26 minutes in time behind you; so that suppose I wished to communicate with my London agent, I cannot do so until after three (our "Room" time) which is, in fact, nearly half-past by London time. I must write my telegraphic message, there is the time for its transmission, and the delivery to the party to whom it is addressed, and by the time of its arrival your "House" is closed, and the brokers and jobbers have taken themselves home to Sydenham, or some other point by railway, to enjoy their dinner. Now, let me suggest a course, which I think so manifestly for the interest of the brokers as well as the community at large, that I cannot doubt but every one will assent to the reasonableness of the project. It is quite clear that if any party wishing to buy or sell stock, and residing (say) at Mullingar, Rathdrum, Drogheda, or, in fact, any locality distant from Dublin—or, indeed, I would even say in Dublin itself—such party cannot effect his object until between half-past two and three in the day, when the "Room" does business. Now, as the Bank closes at three, and too frequently a system is observed by the brokers of having the stock transferred into their own names, and subsequently transferred into that of the *bona fide* purchaser, much delay and extra trouble is occasioned to the Bank clerks. But to the point: it is quite clear that two days are required to fulfil the object, and hence the delay of the parties a night in Dublin. Let us see how this is to be remedied: it appears to me very simple, and having submitted my notions to the "Room," it is for them to adopt them or otherwise. Of one thing I am well satisfied, it would increase business, it would tend to public convenience, but I fear it would have to contend with prejudices of olden days, the customs not having kept in accordance with the times. Now, I would suggest that a morning meeting be held of the members at half-past eleven, Dublin time, this would give them the prices on the Stock Exchange in London of the same hour. Let them do business for 30 minutes, and close the room at twelve; this would enable parties from the country, or even in the city, to purchase or sell stock, and have the same transferred on the same day; cheques might pass with the stocks receipts, and those residing at a distance proceed home that afternoon. It would, moreover, have this effect, that between twelve o'clock and half-past two, the time of the afternoon meeting, there would be ample opportunity, if case needed it, of telegraphing with London, and at the second "Change," or at half-past two, the prices would then be received as to any alteration there might have taken place, and orders given according. This would only involve half-an-hour's extra duty on the 39 members of the "Room" daily; and take my word for it they would double their commissions. I have said enough I hope to elicit attention, and, although it might be said you do not deal in Irish Government funds in London, I can only say, one way or other, certain parties here are doing well by telegraphic communications.

It was with regret we learned at the meeting of the Wicklow Copper Mining Company, held on the 11th inst., that from causes fairly explained, and to which I may advert, the directors, in delivering their report, while they congratulated the proprietors on the present state of productiveness and prospects of the mines, yet, from circumstances explained, no dividends for the six months were forthcoming. This, which it appears had been anticipated by many shareholders, led to the disposal of shares, and with anything like pressure on a market in Dublin the event might well be contemplated. Shares, after being quoted at 50 within the past few weeks, dropped to 38, and those not behind the scenes listened to rumours which the explanation of the directors proved had no existence in fact. The serious decline of 25 per cent. in so short a period in the market value of the company's shares—for it does not touch the intrinsic value of the mine—requires more than a passing remark; and I have endeavoured to make myself master of the subject, which, with your permission, I will submit, observing at the same time that with the limited business done in our market, and the natural effect produced by a dropping market, shares are deteriorated for the moment below their real value, and a panic takes place among those who are *bona fide* holders, but who naturally look to their half-yearly dividends. True it is that dependence cannot be placed on interest or holding in mines the same as in Government securities; the latter pay regularly their 3 to 3½ per cent., and the fluctuations, except in times like the present, are of too trivial importance

for any value to be attached; but in mining pursuits, where honestly and ably managed, with supplies of ore at hand or in sight, and with profitable returns, the capitalist not only looks to an advanced rate of interest, but also takes the chances of the market fluctuations; and, as an instance, I may simply quote the present company, with 51. per share paid on 5000 shares, or a virtual capital of 25,000, the market value being within the past month 250,000, or ten times the amount of capital subscribed. True it is that the shares have declined to 38. per share, or a diminution on the market value of the property of 60,000. Let us, however, see how this is explained by the directors in their report, a brief abstract of which appeared in the columns of your Journal of last week. A few words will, indeed, suffice: the depressed state of the alkali trade, which it is to be hoped is only temporary, has materially affected the demand, if not the supply, from the mines; but as regards the state of the latter, it is gratifying to learn that as a whole the mines never presented a more favourable prospect for large production. At present the operations of the company would appear to be more immediately directed to the raising of copper ore, which, although of inferior produce, affords employment to the miner, and it is to be hoped may be productive to the adventurer. I learn that every fathom of ground producing ore, however low the produce, but paying cost, is being worked away, which with the expectations entertained of the iron ore that I reported on some time back, and which forms the gossan of the copper lode, and now on its road to market, may, it is to be hoped, compensate for the temporary suspension of the raising of pyrites. I am happy to say the shares have rallied, and are now quoted 41, or an advance of 3. per share.

In the course of the observations of the chairman at the late meeting of the Mining Company of Ireland, some remarks fell from him touching on the poor rates, to which our mines are subjected, and which, moreover, formed subject of a short leader in your columns, in addition to my remarks which appeared last week. I find this subject has been mooted at the annual meeting of the Wadebridge Farmers' Club, on the 9th inst., when Mr. Kendall, M.P., made some observations on the subject, which, with your leave, I will transfer to your columns, or at least the substance, as a pleasing evidence that Celt and Saxon can pull together for the general good—a truism, indeed, which daily develops itself. Mr. Kendall observes that Mr. Roberts, M.P., and himself had many months since, in accordance with a promise they had made, with the valuable aid of Mr. Michael Williams, M.P., sought an interview with Lord Palmerston, on the subject of the infliction of poor rates on the working of mines. The noble lord, it appears, as is "his custom," received them with every kindness and courtesy, and having attentively listened to the statement put forward by them, and stated several objections, which were at once met, expressed his opinion that a matter of so much importance required very great consideration, and requested that the arguments used, and the opinions entertained, should be embodied in a memorial or document, and forwarded to him. This was accordingly done, but unfortunately without any result, inasmuch that the press of official duties and other matters would appear to have caused a delay, no communication having been received up to the present moment, although on one occasion Lord Palmerston did express his surprise that a reply had not been given to the application by the Government officials. These gentlemen, having considered what would be the best course to pursue under the circumstances of ministerial silence or indifference, have determined on bringing in a bill on the subject, to which they have pledged themselves, and their impression, as conveyed by Mr. Kendall, is that Government will have no objection to the introduction, or even the passing of the measure. Lord Palmerston having admitted the evils to be very great, and a grievance which should be remedied, Mr. Fitzgerald, M.P., whose name was mentioned by the chairman, it appears, has put himself in communication with the Cornish Members, and having expressed his intention of bringing in a bill for Ireland, it was understood that there would be a junction of power and interests to effect the so-much-desired object. To use the hon. Member's own words, "Now we have no objection to work with any one in a good cause, and if we can get the assistance of the Irish Members we shall be glad of it, on a subject of so much importance to the country." With this, all I can further say is, "God speed ye."

With the new year I have every reason to believe a new era will dawn on mining enterprises in Ireland; and henceforth, I trust my pleasing office will be that of reporting results of legitimate undertakings, and not of exposing the chicanery and deception which, I regret to say, has too often formed subject of comment. However, it was necessary the evil should be rooted out; and I am bold enough to say that your Dublin correspondent has done some "service to the State." I purpose, this week, taking a brief review of the several mines and schemes recorded in your columns; and although I may trespass on your space beyond the ordinary limits, I feel assured that in the course I intend henceforth to pursue—that of leaving untouched and unnoticed the bubbles of the day—I shall better fulfil my mission, while I would strongly recommend you expunging them from your list. I will now proceed to the "dividend-paying mines."

Dividends, the first on your list, is composed of 12,000 shares, with 11. paid, or 12,000. capital. The dividends declared amount to 1800, the last dividend being paid in November, 1853. The market value, according to your quotations, is 10,500. It is my opinion, that if a slight overhauling in certain quarters were resorted to, such might be attended with beneficial results. I do not offer this suggestion without, as I consider, having good reason for so doing.

Next we have the GENERAL MINING COMPANY FOR IRELAND. This company is now composed of 4448 shares, on which 24. 10s. per share has been paid, or 11,120. The dividends declared have been 11. 0s. 8d. per share, on about 3600 shares, being previous to the late issue, or about 3735; the nominal price is 24. per share, or 8896, but no such sum can be realised in the market. The last dividend was declared in June, 1853; since which time the calls and issue of shares must amount to, at least, 6000; while there is, if I understand rightly, at this moment a balance against the company. No good will ever be effected with this concern until there is a board of management who understand what they are about, and do not descend to that system of espionage which I have good cause to apprehend exists. It is a course here unknown, and is hateful and despicable in the extreme, and reflects much discredit on our mining community.

HOLYFORD MINE sends some rich quality ore to market, but I fear is not making profits. The mine is divided into 2000 shares, on which 11. per share has been paid, or 22,000; the dividends received, 31. 5s. per share, or 6500. No profits have arisen since September, 1852.

LACKAMORE, with 20,000 shares of 11. each, or 20,000. capital, paid a dividend before they sold any ore, and that only to a section of the shareholders who had been so grossly duped. All the shares are, I believe, now taken up, the value set upon the mine, according to the market, being about 7600. This mine will, if I mistake not, under the able surveillance of Messrs. John Taylor and Sons, ere long, take its place legitimately in the Dividend List, from which it ought now to be expunged.

Next come we to the MINING COMPANY OF IRELAND. This company, which is composed of 20,000 shares, with 7. paid, or a capital of 140,000, has divided 101. 6d. per share, or 206,500; the last dividend declared, on the 4th inst., being at the rate of 20 per cent., free of income tax; the selling price of the shares is 171. 10s., or 350,000, being 150 per cent. premium.

NEWTONARDS, the next on the list, is held by a small party, and their shares are seldom or ever quoted. The mine is divided into 470 shares, on which 50. per share has been paid, or 23,500. The dividends declared, up to October last, amount to 39. per share, or 18,030.

We now approach the WICKLOW COPPER MINING COMPANY. The company consists of 5000 shares, with 51. paid, or 25,000; the dividends paid amounting to 24. 18s. per share, or 123,250. There was no dividend declared at the meeting held this month, in consequence of the demand for pyrites having temporarily slackened. The profits on the workings for the past six months appear to have been 6341. 11s. The shares, however, which on Nov. 4, 1854, were quoted at 51½, or 257,500, for the mine, have since receded to 38, or 190,000, being a decline in market value of 67,500, without there appearing to be any just cause for so serious a fall, beyond the fact of the absence of a dividend at the meeting held last week, while the vein of pyrites is reported as being "even better than heretofore."

KENMARE, which paid 1s. 6d. per share, or 1500, out of their capital in the shape of dividends, I pass by. The following will be the result:—

	Capital.	Dividend Paid.	Market Value.
Dhurade	£12,000	£1,800	£10,500
General Mining Company for Ireland	11,120	3,735	5,900
Holyford	22,000	6,500	no quotation
Lackamore	20,000	3,735	7,500
Mining Company of Ireland	140,000	206,500	350,000
Newtonards	470	18,030	no quotation
Wicklow Copper	25,000	123,250	190,000

It will be observed, that Berehaven, a highly productive mine, with

perchance one or two others which do not sell at public ticketing, are not included in the above.

I now approach the second list, mines which have sold ore. Ballygoheen, 12,000 shares, paid 11. per share, capital 12,000, market price 4500. Ballyvirgin, 4000 shares, 11. 8s. paid, or 5600; this mine, up to Dec. 23, appears to have been divided into 200 shares only, with 25. per share paid; I presume it has since been subdivided. I have carefully looked through your lists, but cannot find a price quoted. The Barytes Company of Ireland are 15,000 shares, 11. paid, or 15,000, while they have the assurance to quote them at 2½ premium, while I verily believe there has never been a bargain done. If I mistake not, the bakers are the best customers for Barytes, judging from a report I have now before me, from the *Cork Southern Reporter*.

Connemara, with 15,000 shares, 11. paid, or 15,000. capital, quoted price 4½; it might as well have been 10. as 10s.; this is one of the schemes of the days that are past, it is to be hoped never to return, or the like of them. Coosheen next appears in the field, with 20,000 shares, 11. paid, or 20,000, market price 1½; these shares were "rigged" up to 7 or 8 premium. An investigation took place in the London Stock Exchange, and I believe the results are pretty generally known. They have recently shipped some 60 tons, but which is said to be of inferior quality. Crookhaven, with 1500 shares, and 10. paid, or 15,000, very prudently quotes no price. Glen Lead, with 8000 shares, and 2s. 6d. per share paid, called 1½ premium; of information relating to this, like many others, I may say, "non mi ricordo." Kilbricken, with 3300 shares, 51. paid, or 16,925, may be had at 1½, or 4950. Mizen Head, with 20,000 shares, 2½ paid, or 12,500, may be had at any figure; they are nominally quoted 3. Tassan Lead, 20,000 shares, 13s. paid, or 13,000, are quoted 7s. 6d., or 7500. I think I have now got through my second list, which will be found to stand thus:—

	Capital.	Nominal Market Price.
Ballygoheen	£12,000	£4,500
Ballyvirgin	5,600	no price.
Barytes Company of Ireland	15,000	marked 16,750
Connemara	15,000	7,500
Coosheen	20,000	25,000
Crookhaven	1,500	no price.
Glen Lead	8,000	2,000
Kilbricken	16,925	4,950
Mizen Head	12,500	2,500
Tassan Lead	13,000	7,500

Now come we to your list of mines not having sold ore. How many more could I add? but, indeed, your half dozen are quite enough, as a sample of the rest. Carberry West, 30,000 shares, 10s. paid, or 15,000. capital, nominal market value 2s. 6d. per share, or 3750. I doubt very much if any one would take to them at 2½. Next comes Glenaulin and Carvilleen, 24,000 shares, 10s. paid, capital 12,000, price quoted 3, or 3000. No funds, no ore—the only little episode touching this concern is the appearance of Mr. Boyle at the late sessions in Bantry, to meet the demand of one Tonkin, for 8½, for services rendered as surface agent, dresser, &c. As the man had nothing to do, it was contended he ought not to be paid; however, the magistrates gave him a decree for 75 per cent. of his claim. Irish Consols, with 30,000 shares of 11, or 30,000. capital, I believe may be said to be defunct, or at the last gasp. I heard they were to do wonders with Berdan's machines, but it appears it was no go. The price quoted is 2s. 6d. per share, 3750, which I have no doubt the directors would be glad to get; but no such luck. Next we have Kerry Lead, and if I mistake not this is a cash concern, and an immediate neighbour of Castlemaine, the scene of past festivities. Here we have 8000 shares of 11, or capital 8000, market value nothing. Kilrairie, with 20,000 shares, 3s. paid, or 3000, are quoted 3, or 10,000, but where is the market? Leighelton (newly christened), with 20,000 shares, and 1½ paid, or 6000, are quoted nominally at par. Oola (Limerick), 8000 shares, 11. paid, or 8000, the market value quoted 10,000. The reports cannot warrant this, but I will institute enquiries before my next. The Royal Hibernian, with 100,000 shares, 11. paid, or capital 100,000, purchase-money a moiety, or 50,000, only some 80 or 90 acres at Castlemaine then secured; the whole number of shares taken by the public 3500, or about 1-30th part of the capital. It is a disgrace to quote such a scheme. Cast it, Sir, to the winds, for that is its proper place, as well as the projects and conceits.

There is, I believe, one more (for I am confining myself to your list), that of the Waterford Copper Mining Company, which, with a capital of 10,000, appear to have done neither more nor less than to follow in the wake of their confreres,—having paid the conceits or projects (the directors, or majority of them in most instances), found appointments for themselves and their cousins german, and who will one day quietly "wind-up," and be found "non est," while they will leave their unfortunate dupes, the shareholders, to rue the day when they misplaced their confidence in London jobbers, who professed to work Irish mines. The following is a summary of No. 3 list:—

	Capital.	Nominal Market Value.
Carberry West	£15,000	£3,750
Glenaulin	12,000	3,000
Irish Consols	30,000	2,750
Kerry Lead	8,000	nil.
Kilrairie	3,000	10,000
Leighelton	5,000	5,000
Oola	8,000	10,000
Royal Hibernian	100,000	nil.
Waterford Copper	10,000	nil.

Our market in Consols has varied only 1 per cent. during the past week, leaving off at 92. buyers. Royal Bank shares, 193½; Grand Canal, 30½; General Mining Company, 17½ with dividend—since done at 16½ 1 ex div.; Lackamore, 7s. 9d.—a whole "five," I believe, done. Wicklow Copper have had a re-action from 38 to 41. Railways you may quote as last week. As a novelty, we have had a transaction in Crystal Palace, at 37; I believe the shares were purchased by a party who is about to emigrate from Dublin to Sydney. The market may be said to-day to be "firm."

THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

(FROM OUR CORRESPONDENT IN BIRMINGHAM.)

JAN. 18.—I regret being unable to report more favourably of our great staple trade. It is far from being what could be desired, and without any immediate prospect of improvement. Since my last communication, two important meetings have been held of the ironmasters, but without satisfactory results. Although the meeting of the quarterly series held at Birmingham is generally considered the most important, and that at which the general tone of the trade is more fully ascertained, the final decision as to prices is reserved for the meeting at Dudley. That meeting was held on Saturday evening last, at the hotel, and was numerously attended. The same indecision, however, which characterised the previous meetings was manifested. The same difficulty which presented itself at the Birmingham meeting existed. Some who have as yet bristled Government and other orders on the books were opposed to the reduction of 40s. per ton, whilst others, viewing it as inevitable, persisted in their resolution. The result, however, was that whilst 9½ was quoted, it was feared that even that price would not be adhered to by many, whose limited means would compel them to sell. So far the meeting was unsatisfactory, but not more so than that held yesterday at Walsall, and which took place pursuant to adjournment, of which I apprised you in my last. The meeting was composed of the makers of pig-iron, and nearly all the large houses were represented. Phillip Williams, Esq., presided. The subject for consideration was, the propriety of reducing the make, in order to meet the decreased consumption, and the number of furnaces in and out of blast (particulars of which appeared in your last Journal), was referred to, and a still further reduction was suggested. In opposition to this recommendation, it was stated by some gentlemen that the trade did not require any formal resolution on the subject, that the demand would regulate the supply, and that if makers found they could not sell, they would not continue producing. Besides, it was held by some masters that the orders on the books were not such as to justify any such resolution; and it was accordingly abandoned, leaving each master to continue or blow out his works, as circumstances might require. This course, on the whole, was the best that could be adopted, as it is difficult to say who ought or ought not to blow out their furnaces. There can, however, be little doubt that a large reduction of the make must take place; for however few masters may be favoured with orders, the great majority are deficient of them, and cannot continue the present make. Pig-iron, as yet, maintains a good price, few sales being made at less than 47. 5s., and 57. being obtained for best quality. The district, on the whole, is in an unsatisfactory state, and presents a striking contrast, in many parts, to that extraordinary bustle and activity which prevailed a few months ago.

The recruiting sergeants are exceedingly active, and daily taking many

young men who would find it now exceedingly difficult to procure work at the mines. There are some doubts as to whether present wages can be continued; but, if possible, it is most desirable they should not be reduced.

As usual, in times like the present, there are continued rumours of commercial embarrassments, which certainly produce very serious consequences; and this week has been particularly fruitful in such reports. Indeed, the extent to which they have been carried may be easily inferred from the following notice in the *Midland Counties Herald* of this day:—

"We have been requested to caution our readers against giving credit to rumours which have been circulated during the last few days, with regard to the position of several houses of business in this neighbourhood. In two instances, a gentleman who has communicated with us took the trouble personally to satisfy himself that there were no grounds whatever for the reports which had been put forth. At the present time, in fact at all times, persons should carefully abstain from doing anything which is likely to damage establishments hitherto known to be responsible, for the injury and annoyance in cases of this kind may be very considerable; while, in other circumstances, an unfounded rumour may lead to the most serious consequences. It would be well if the originators of some of these false reports could be detected and exposed, as an example to others."

In the Copper and Metal Trades generally, there has not been any material change in prices, and the consequence is that manufactured goods, although easily obtained, and too plentiful at the warehouses, have not undergone any material reduction.

The Coal Trade maintains a sound position. Orders are brisk and increasing, in consequence of the sharp weather which has set in throughout the district.

The following are amongst the inventions which have passed through Mr. Shaw's office this week:—

Mr. Edward Wolverston, of Aston, near Birmingham, has specified a new or improved lock. On the end of the bolt of the lock a series of plates are situated, which plates are connected to the bolt by a vertical rib, entering vertical slots in the before-mentioned plates. A horizontal slot is also made in each of the plates, the slots being higher or lower on the different plates. A horizontal rib, or plate, on the lock-case prevents the bolt, when it has been shot, from being withdrawn until each of the plates on the end of the bolt has been raised to such a height that the horizontal slot is in the same plane as the horizontal rib on the lock-case when the bolt can be withdrawn, the horizontal rib entering the horizontal slots during the withdrawing of the bolt. The plates on the end of the bolt are raised to the respective heights necessary for the withdrawal of the bolt, by means or slides, which are acted upon by the key. The slides have projections, which engage under shoulders in the plates on the end of the bolt.

Mr. Thomas M. Woodyatt, of Kinver Mills, near Stourbridge, has specified for an improvement or improvements in consuming or suppressing the smoke of steam-engine boilers, and other furnaces. This invention consists in consuming or suppressing the smoke of steam-engine boilers and other furnaces, in the following manner:—The inventor constructs two walls, extending across the back of the furnace, and constituting a double or hollow bridge, occupying the place usually occupied by the ordinary bridge. The space between the two walls, or double bridge, closed at the bottom by a plate perforated with small holes. Air enters from the ash-pit, through the holes in the perforated plate, and rising between the double bridge, mixes with the gaseous combustible matter passing over it, and effects the combustion of the same.

IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

(FROM OUR CORRESPONDENT IN CHESTERFIELD.)

JAN. 19.—The reduction of 40s. per ton upon bars, declared at the meetings of the Staffordshire ironmasters, has occasioned merchants to buy more freely, as they can now replenish their stocks without fear of the being depreciated in value, and with a fair prospect of an advance. The is, however, considerable depression, from which peace in Europe, and demands from America, appear alone able to relieve us. The demand for hoops continues to be good, and iron for the rolling stock on English railways is in considerable demand; indeed, there never was a period when railway locomotives, wagons, and carriages, were in greater request. The South Yorkshire Railway Company finds it necessary to have a large supply of trucks for conveyance of coal, via the Midland Railway; and North-Eastern Railway Company has recently given out orders for considerable additions to their wagon stock. The Sheffield Trade is in much less active state than it was some months ago, in consequence of the continued dullness of the American trade, and the want of confidence inspired by the war. There is, however, considerable business doing the town, and in some branches the manufactures are little diminished. The Scotch pig-iron market undergoes but little variation, and, with the small stock which is held, there is reason to expect that prices will be maintained. Derbyshire pigs are in fair request, and when made for Derbyshire ore only, command higher prices than Scotch brands. Pig iron from the Cleveland district is now offered below the price of Scotch pigs; but it does not find much favour amongst ironfounders generally, not being so well adapted for castings as Scotch iron.

The Coal Trade must be reported very bad in the Yorkshire and Derbyshire fields; at some of the leading collieries the men are not working more than two or three days per week, and there appears a very great sense of demand. This may be accounted for in great measure by the accumulation of stocks throughout the country, in anticipation of some severe weather than has yet been experienced. The deliveries of coal in London appear to have been 50 per cent. greater on the past six months than during the same period of 1853. The total quantity of coals delivered per rail into London, during the last three years, was 979,170 tons, being an increase of 630,000 tons as compared with the deliveries in 1853.

The lead mines in Derbyshire are progressing with great success. The Brightside Mine promises to rank with the best and most successful mining enterprises in the country. It is now better than four years since the present company commenced their operations. They steadily prosecute the works, feeling satisfied that all their anticipations would one day be realised. They have sunk 50 fms., and driven three cross-cuts, and are doing so have cut Goodwin's, Hading, and Botany veins; and in addition to these they have other veins in the 20 and 40 fm. levels. In the six weeks ending the 1st inst. the quantity of ore raised exceeded 43 tons, which, after allowing for dues, will sell for 8400. A dividend of 21. per share was declared on Friday last; and the committee have every reason to believe that a similar, if not greater, dividend will continue to be paid every six weeks, should the present successful operations continue.

At the Peak United Mines, Derbyshire, 18 tons of ore were sold on Wednesday last, at 134. 15s. per ton. On the following evening the proprietors gave a dinner to their workmen at the Newburgh's Arms, Calver, which occasion Mr. Bagnoyne, of Eyam, was requested to preside; and, doing so, observed that the present era of mining in the Peak was a great striking, and altogether a pleasing epoch. The complete prosperity attending these various mining operations in that special locality, extending from Eyam to Hassop, over Middleton Dale and Calver Peak, was a fulfilment of an assertion, almost prophetic, made by the persevering friend of mining in the Peak, Mr. Broomhead, some few years ago, to the chairman, at a time when little was doing in exploring the district, and when the green sward covered and the grass grew where now scores of men were happily employed—viz., that the locality was so mineralised, that if any one point was fixed upon, and operations perseveringly and wisely carried out, by the assistance of steam or water-power, he had not the least hesitation in saying that remunerative returns would be obtained, and such they all knew was now the case. Few mines in the district, their success, confirmed Mr. Broomhead's opinion more extensively than the Brightside, at which mine they had just weighed the ore got during the past six weeks, and found they had upwards of 6000. worth. The committee had this day declared another dividend of 21. per share. A gentleman, whose opinion of the state of mines given is worthy of consideration, because he was practical and successful—no successful, in the mines to which he had devoted his attention for a series of years, was now producing one-third of the recorded produce of Europe—had, at the request of the chairman, inspected the Brightside workings; and in manuscript report he could show them that the opinion of this successful miner was highly favourable. The times he considers very favourable for mineral deposit; the average amount in every working that he inspected in the 50 fm. level he estimated at 2 tons of ore per fm. And mining, to the credit of the company's agent and workmen, is declared to be of a high order. The miners have not yet reached the vein at the W. Park and Calver South Mines; but the opinion of the leading mine adventurers in the neighbourhood is, that they will do so in a few days, and their opinions concerning their own locality are seldom wide of the mark, consequently, in due course, we expect soon to have to report the inter-

ing fact. We say interesting, because on the state of the vein when cut depends another great and very extensive operation in the neighbourhood. We were enabled to publish, some time ago, some particulars of the condition of the Midland Mining Company at Ashover, which were gathered from the official report of Mr. Taylor, the agent at the mine. We put the mining public in possession of certain facts, which it would appear Mr. Taylor did not wish to be generally known; as we have been informed that he was not only astonished and surprised how the secrets of his report should have found their way into the Journal, but somewhat annoyed. We are delighted at the idea; and if it be any satisfaction to Mr. Taylor, we can tell him that we are in possession of all the information that we can desire in connection with the Midland Mining Company. So long as we can obtain reliable information from respectable sources, calculated to promote legitimate mining enterprise, we shall publish it, irrespective of fear or favour. The Midland Mining Company have not had a sale of ore lately, although they have plenty at surface, owing to the crusher having been out of repair. Mr. Taylor is also the agent of the Hogland Mining Company, but as yet their operations have not been so successful as they could wish: the first shaft they attempted to sink fell in, happily without loss of life. This is another fact which Mr. Taylor will not, perhaps, exactly relish, and which we should not probably have mentioned, had he not shown in such a hatred for publicity.

A fatal accident occurred, last Saturday, in the Speedwell Pit, Staveley, belonging to Mr. R. Barrow, to George Siddal, engine-manager, and James Gascoyne, foreman. In consequence of the boiler of the engine which draws the coal to the shaft bursting, Siddal heard a warning from the boiler, and being alarmed, he scrambled over the boiler into the engine-house, thinking to escape injury; but, unfortunately, the steam burst in upon them, and they were so dreadfully scalded that both died in about three hours after they were taken home. The lad was taken in a wheelbarrow, and his sufferings were so severe that he leaped out and ran home; indeed, they were both so dreadfully scalded that their flesh came off with their clothes. Mr. Bushy held an inquest at the Crown Inn, Mr. Charles Morton, the Government Inspector being present; when, after a most careful investigation, the jury returned a verdict of manslaughter against John Keenleyside, engineer and manager of the works. The deceased Siddal used to say that the boiler was thin, and that it would be bursting some of these days. Keenleyside has been committed to take his trial. Siddal has left a wife and a young family of five children to deplore his loss. He had been years on the works, and was highly respected by the numerous workmen employed, whose confidence as an engine-manager he enjoyed in the fullest manner possible. Gascoyne was a single man, being not more than 18 or 19 years of age.

The Railway, Share, and Stock Markets, during the week, have had an improving tendency; the principal stocks having advanced about 1 per cent.

THE IRON TRADE.—The last day of the quarterly meetings was held at Dudley on the 13th inst.; there was a large attendance. The principal topic was the division which existed amongst the marked iron houses relative to price. On that day, those who had not reduced below 10%, were still undecided; but it was understood, before the meeting broke up, that 9% was to be the figure for all the leading houses to adopt, and circulars were issued on Tuesday announcing it. So far, for the present, is the question set at rest. On Wednesday, the pig-iron makers met at Wolverhampton, to take into consideration the policy of reducing their supply; at least three-fourths of the trade attended, but they could not unanimously carry out the proposed reduction. Some objected to reduce further on account of having already, as they considered, done their share; others said it was not to be expected that their books should be opened to show the actual quantity produced; while others wished the matter left alone, and every one do the best he could for his own particular connection. Eventually, as so many opinions existed, the latter was acceded to, and so no alteration takes place in the production. Cold-air pigs have been sold at 4s. 5d. 5s., if not 2s. 6d. per ton lower; whilst hot-air mine are being sold at from 4s. 5s. to 4s. 10s. per ton; puddled bars cannot be sold at any price. The stocks are low in pigs; this may be accounted for by most of the manufacturers keeping their forges on while the mills have been short of orders.

It is no use delaying the question of wages—THE MEN MUST BE REDUCED. It is absurd to be paying the same rates to the workmen, with bars at 9%, as they were paying when bars stood at 12%. Why delay the step? It has to be done; the masters cannot afford to pay present rates, and it is a waste of money to go on with them. Surely, just now, when orders are slack, is the best time to reduce, and not when the spring orders are coming in, which will be the case in a few weeks. I have the greatest respect for the talent and business-like habits of the ironmasters of this district, but in preference to the halting and uncertain manner in which the propositions have been met during the last two or three weeks, I would infinitely prefer seeing the trade meetings abandoned, and let every house sell and buy, and pay its own rate of wages, as is best in its own judgment, and without reference to the requirements of its neighbours.

I see in a local journal that it is presumed when iron is sold below the quoted price of the trade that it is done so by needy men. I beg you to understand that such is not the case. There are houses in the trade who do not produce what is known as marked iron—i.e., an iron of an uniform quality—and who do not realise such a high price as those who are pledged to do so, and who never send out a bar which has not their distinguishing brand marked on it; these houses are generally 5s. to 10s. per ton below the first-class makers, and from the quality they produce can afford to do so, by using pig-iron of less expensive make, and not being liable to deductions on account of quality, as the best make would be. I am glad to say that, notwithstanding the great falling off in demand for the last few months, the payments of the district are promptly and well made, and that the financial condition of the trade is very satisfactory.—*IRONMASTER: Worcester Journal*, this day.

THE COAL TRADE.—The following statement shows the number of tons of coal imported by rail, canal, and roads, in the past three years:—

	1852.	1853.	1854.
Great Northern Railway	195,865	358,775	308,562
North-Western	137,978	173,346	271,011
Eastern Counties	28,816	68,148	16,338
Great-Western	10,536	16,589	64,592
South-Eastern	10,632	12,834	29,934
Grand Junction Canal	33,890	2,602	32,153
Thames	113	42	—
Common Roads	—	2,373	1,900
Total tons	411,890	653,729	779,170

ECONOMY OF FUEL.—M. Van Cutsem, of Neurengring, in Belgium, has discovered a process by which the dust of coal may be converted into a fuel which burns longer than ordinary coal. An experiment with this new fuel has been made on board the *Amelita* steamer: in a voyage of 12 hours, from Rotterdam to Antwerp, she consumed only 3725 kilog. of this new preparation, whilst with English coal the quantity consumed in the same time would have been 5725 kilog., thus effecting a saving of 35 per cent. An experiment made on the Amsterdam to Utrecht Railway, showed a saving of about 50 per cent. on the ordinary coals. The coal prepared on the system of M. Van Cutsem produces a clear white flame, throws out scarcely any smoke, and has no unpleasant smell.

NEW PORTABLE STOVE.—At the Society of Arts, on Wednesday, a portable stove for heating and cooking, called the *Cricket* Army Stove, constructed by Price's Patent Candle Company, was exhibited in full action. It is made of thin wrought-iron, without any flue, may be used on any table and in any room, and is designed by the inventors for the use of the army, for whom it seems peculiarly suited. It is simple and compact in its arrangement. The fuel employed is common steamers, in cakes, burnt by means of six wicks introduced into each cake, the cake sitting in a tin dish, made exactly to contain it. No smoke is produced, and the stove is capable of boiling, baking, and broiling, and the whole is comprised in a cube of about 16 in. The cost of fuel burnt is at the rate of 1d. per hour, a cake lasting eight hours. Our gallant army in the Crimea have suffered bitterly from the scarcity of fuel, as well as the difficulty of cooking their food, and it was to remedy these distressing evils that this contrivance was devised by its inventors. We understand that it was long since approved of by the Government authorities, in whom it was referred for examination; but although it can be supplied at 17s. per stove, our paralyzing and deplorable system of routine has hitherto prevented the necessary supply being forwarded to the Crimea. The company have themselves sent out 100 of the stoves, while the apathy and incapacity of the official department which assumes to manage the war is, in addition to many other causes of reproach, exemplified in their not having as yet followed that spirited example.

THE CYANIC MANURE COMPANY.—This company is formed for the manufacture and supply of these preparations, invented and patented by Mr. W. White. The cyanic manure, cyanic deodorizing powder, and the cyanic plant preservative. The cyanic manure is the result of many years' investigation into the economy of the vegetable kingdom, and possesses several distinctive features of superiority over ordinary farm-house manure, and the great distinctive feature of superiority is that it is manufactured in the form of a portable, inoffensive powder, and is used at the average rate of 3 cwt. to the acre. Like guano, it is sown broadcast, or drilled in with the seed. To the gardener it is essentially valuable, as presenting the richest manure in the simplest form. It is stated to have been tested by patient and successful experiments, and witnessed by judges of the first authority.

MINING COMPANY OF IRELAND.—The following gentlemen have been elected directors for the ensuing year:—Edward Atkinson, Francis Barker, M.D., Thomas Bewley, Samuel Bewley, jun., Francis Codd, Edward A. Gibson, James Gray, Robert R. Guinness, Sir Robert John Kane, M.D., James B. Kennedy, James Magee, Richard O'Gorman, James Perry, Thomas Finn, and William Stephens.

ON MINES AND MINERALS IN AMERICA.—No. IV.

BY G. S. RICHARDSON, C.E., NORTHAMPTON, MASSACHUSETTS.

DISTRICT OF THE WHITE MOUNTAINS OF NEW HAMPSHIRE.

That there is an ore-bearing belt passing in a north-east direction from the base of the Catskill Mountains, in the State of New York, throughout the five New England States, and thence onward into the British possessions in New Brunswick, touching the north-west end of Nova Scotia, every one must admit who has passed over, and examined the geology of those States. At Peekskill, on the River Hudson, it is found in and near the talcose slate, which, when bounded by limestone, produces magnetic iron. At New Milford, on the Housatonic River, the lime is there a kind of Has, and mica-slate begins—or, I should say, is found; it here produces spathose iron of the richest quality, highly impregnated with silver. At Bristol, Connecticut, where the mica-slate is interstratified by grey and black gneiss, there vitreous and purple ore, copper glance, and the finest sulphuret, is found. On the eastern side of the same, near Middletown, on the Connecticut River, which is bounded by coarse granite, a thin stratum of good killas is seen; in this is a beautiful course of rich silver-lead ore. A little further on, where the bounding rocks are of a more igneous nature (so called by geologists), there is found abundance of cobalt and nickel. Following up the course of the Connecticut, we arrive in Massachusetts. Here, when we have passed the great trappean ranges of Mount Tom and Mount Holyoke, and fairly emerge beyond the sandstone formation, we find, running alongside of the granite and gneiss hills, the great Northampton and Southampton lead and copper lode (noticed in a former article, under the head of the Loudville Mines). Onward again, it will be found near Worcester, and a few miles above Lowell, where it crosses the Merrimack River; here it makes yellow sulphuret. Passing on through the south-east corner of New Hampshire, about the vicinity of Winnepesaukee Lake, we cut entirely through it in the works of the Atlantic and St. Lawrence Railway, at South Paris; here it may be seen to advantage. It now passes into the State of Maine, among the granite mountains, and there I lose sight of it, as I have not yet explored that State; but I gather from persons who have penetrated the forests up the Kennebec River, that there is a quantity of rusty, rotten-looking, yellow ground there in places—meaning the outcroppings of the gossan. It is further known to pass through New Brunswick, and some say Nova Scotia. It appears to be quite narrow in places; in others, from five to ten miles wide, but always appears most metalliferous at surface, where the mica-slate is of a loose, soft nature, as at the Chatham Cobalt Mines, the old Bristol Copper Mines, and a few more places I have traversed over.

For the information of my brother miners who may, some time hereafter, desire to follow my foot-tracks in this rich mineral country, I propose, in all my future papers, to give them a description of how to get about the country; for I need not tell them, perhaps, that in the absence of any kind of guide, they will often be put to much trouble, loss of time, vexation, and serious expense, by going a long way out of their right road. They may often, also, be put to the trouble of going a long journey to see nothing; for people in this country are beginning to talk about mines, and as there has, within the past three years, an entire host of professors of mineralogy and geology sprung up, who look upon every string of rock quartz as (what they call) a metallic vein—mines are said to be in almost every direction. However, to proceed: as we are going up into the White Mountains, we will imagine ourselves at Portland, in Maine. This is a very fine town and harbour, where a good timber and ship-building trade is carried on. It is the commencement of the new line of railway that connects the Atlantic Ocean towns with the lower end of Upper Canada, on the River St. Lawrence, at Montreal. It is a line that must presently become one of great importance, and more particularly if the new project of making Portland a steam-packet and emigration-ship station is carried out. Among its proprietors are some of our wealthy London men, such as S. M. Peto, Esq., Great George-street, Westminster; Wm. Jackson, Esq., ditto; G. C. Glyn, Esq., Lombard-street; J. Edward Moss, Esq., Liverpool; Thomas Baring, Esq., Bishopsgate-street; C. Morrison, Esq., and a good many others, I am told. The line is well made; and although, at present, it is but a single track, yet there are three passenger-trains a day run throughout its entire length, which is about 290 miles. I think this route to the western States, and more particularly to the north-western mining districts of Lake Superior, much better, quicker, and a great deal cheaper, than going to New York, as you can now travel from Montreal by steam-boat, up Lake Ontario, to Hamilton, and thence to Niagara by rail, or else land at Neward. From this, the Great Western Canada line goes on through Upper Canada to Detroit, although I cannot speak in its praise, for I had an awful shaking on it, when passing through Upper Canada last week. The line has been too hastily and temporarily constructed, but in time it will get duly settled down. Or you can go from the Falls to Buffalo by rail, and take the steam-boat (one of those gigantic floating palaces) up through Lake Erie and Detroit; then through Lake St. Clair and Lake Huron, up the new canal at Saut St. Mary, into Lake Superior. Here you are in the land of mines.

But, to return back again to New Hampshire. The Atlantic Railway, after passing by South Paris some 40 miles, goes through the township of Shelbourne and Gorham, on the banks of the Androscoggin River—a powerful, rapid mountain stream, that takes its rise north of the White Mountains, among the numerous small lakes of that district. The Morse River falls into it above Gorham; the Dead River a little below; and the Peabody, and many other streams, in the vicinity of Shelbourne. From this it runs south-easterly, receiving many tributaries, until it joins the Kennebec, and falls into the sea at Sheepscot Bay, about 43° 45' north latitude, and 70° west longitude. Shelbourne is the only place where any regular mining has been carried on, and here to only a small extent. About ten years ago, a company was formed in Boston, to work the silver-lead mines north of the Androscoggin River. They purchased 21,000 acres of forest land, and commenced sinking pits on a large lode, which showed itself in a deep ravine. This ravine has been caused by denudation, the back of the lode being washed away by the stream passing over it. It is nearly east and west, with an underlay of about 2 feet to the fathom. Having been found promising on the back, an engine-shaft was sunk on the underlay, 45 fathoms in depth; the lode was found to be about 10 feet wide, carrying a regular leader of blende and white iron (spathose), 20 inches thick, with bunches of silver-lead. Some specimens of this ore were exhibited in London, at the Crystal Palace, in 1851. They were nearly solid stones of 400 lbs. each, and are now in New York. They are said to yield 75 ounces of silver to the ton. The ore is certainly of a first-class character. The matrix of the lode is a curious mixture of clay, mica, soft green granite, and flookan. The whole lode is impregnated with fine particles of white mundie, and specks of yellow copper; it decomposes on exposure at surface. There was an absence of good quartz, but the regularity of the lode makes me think it will become productive in depth. I was enabled only to get down 14 fathoms, as the water was not in fork lower than that depth; but judging from the leads that remain, which came from the 45 fm., it looks much richer in ore. The shaft has not yet reached the level of the valley; therefore, but little can be expected until such a depth is arrived at. The company suspended operations about five years ago, and the property is now in the hands of a party of New York capitalists, who are about to organise under the title of the White Mountains Mining Company. This is one of those properties which portray the rapid rise in value of mineral and forest lands of this country. A few years ago, it was sold for the nominal sum of 40 cents (20d.) per acre; since the railroad has been run through it, it has now become worth \$15 (3s. 2d.) for its timber alone, leaving out the minerals. On it may be found some of the finest ship-building timber in the State. I measured one stately tree, 136 feet long, which was 2 feet through 70 from the butt. There is a ready sale at Portland for the whole of it. It has recently been surveyed, and certain parts of the estate are found to be worth as much as 10s. to 12s. per acre. This company can make a yearly dividend of 10 per cent. on the capital they have embarked by the timber alone. I consider it a very valuable property. The late company have fallen into the same error as many others in this country—viz., by erecting smelting-works on the mine before they had got ore enough to keep the works going. There are three other known lodes in this part of the set—one about three-quarters of a mile up the western mountain, bearing 30° north-east, 3 feet wide, carrying veins of blende, quartz, mundie, and fine strings of lead, and traces of copper; it is crossed by hands of blue elvan in several places. Between this and the main lode at the mine are two others, seen in a ravine; they have one regular wall, and appear to have a bearing of 18° north-east. One of them intersects the main lode a short distance below the mine; judging from the back, it must be a large lode, and I think will make a great deposit of ore at that point, as they are both so strongly mineralised. There is a large mineral

channel passing north and south across the valley, on the eastern part of the set, but I think, from its appearance, it is iron, as this ore abounds in the mountains, towards the south-west. The strata are gneiss, mica-slate, and granite, the latter sometimes regularly interstratified with the slate. There is here to be seen a thing I never saw before—viz., beautiful compact grey granite in regular even strata, of from 9 inches to 2 feet thick; it has straight heading joints, and comes up in fine slates, some of them 20 feet long. As a building material this is excellent; it is as straight and true on each face as a slab of sandstone or slate. On the northern side of these mountains it is all primeval forest; there are thousands of square miles uninhabited, save by bears, deer, and wild game. It is very solitary travelling that way—no roads, or even tracks. I have been some distance north, in search of minerals, but could find none; the mountain sides are mostly covered by debris; and where cliffs and ravines are found, they are split up into immense tottering loose rocks, which every winter are rent asunder by the frost and ice, and in spring come with an avalanche into the gorges below; but although the scene is so sombre and lonely, uncheered as it is by the sound of any bird or animal, save now and then by the rustle of a poor half-starved black snake in the dead leaves, who appears very indifferent about getting out of your way, but often coils himself up on an old stump, and gazes vacantly on you as you pass, yet to the contemplative mind there is something beautifully grand in this wilderness. Here can be seen the great northerly movement of the rocks, with their open chasms in direct lines 25° north-east, scarcely varying a foot in a furlong. Here lie, in a mountain pass, hoary-headed monster rocks, which have braved the whirlwinds of heaven in defiance for thousands of years on the mountain summits: there are seen others about to follow them down, but pausing a few years en route, as if they stopped up a little way to have a parting glimpse of the sun. They lie prostrate: how came they there?—by what hand were they removed? Look down on the foaming cataract that tumbles over, and runs along, the ledge of outcropping strata: there you will see the waters are hollowing out and undermining a large stratum of soft, iron, mica-slate. On this rests the whole mountain. The progress is slow, but it is constant and certain. It might be thought that such an immense mass of debris would fill up the valleys, and become a pillar to support the remaining rocks; but examining the stones in the ravines carefully, and there it can be seen that rapid disintegration is going on, assisted by the continual friction of the water, and the hard pebbly matter it carries with it, which, with every new freshet, sweeps down the crumbling detritus, and sends it off to the rivers, from whence it is transported to the depths of distant oceans, there to lie, and again be re-formed into new rocks.

[To be concluded in next week's Mining Journal.]

RAILWAY TRAFFIC RETURNS.

ENGLAND.—Subjoined are the traffic returns of the various English lines

for the last week:—	1855.	1854.
London and North-Western	£44,603	£42,946
Lancashire and Yorkshire	18,620	14,576
London and South-Western	11,469	9,942
Great Western	21,019	19,543
London and Brighton	9,980	9,001
Midland	23,659	20,060
South-Eastern	17,193	15,755
Great Northern	16,452	11,040
Chester and Holyhead	3,882	3,476
North-Eastern	23,707	20,632
Manchester, Sheffield, and Lincolnshire	8,087	5,047
East Anglian	812	683
Eastern Counties, Norfolk, and Eastern Union	18,490	14,576
East Lancashire	8,604	4,783
Bristol and Exeter	6,251	3,910
Exeter and Crediton	134	46
Shropshire Union	781	638
Birkenhead, Lancashire, and Cheshire Junction	1,769	1,409
Manchester and South Junction	654	501
Oxford and Worcester	2,765	2,168
Newcastle and Carlisle	2,482	2,099
South Yorkshire	1,542	525

These figures show the following aggregate results (taking only the corresponding lines):—

	Receipts.	Miles open.	Average per mile.
1855	£230,377	4661½	£51 7 0
1854	203,045	4531	44 16 3

This comparison is highly satisfactory to the present season, but is to some extent affected by the fact, that at the corresponding period of last year the traffic of several lines was considerably impeded by heavy snow storms. The good effect of the traffic arrangements recently announced is already beginning to be shown, inasmuch as combination on the part of some companies is superseding competition, so that increased revenue appears to be gained without additional expenditure of moment. The magnitude of the traffic returns, in face of the check given to trade, must be considered a highly encouraging feature.

SCOTLAND.—The returns on Scotch lines are:—

	1855.	1854.
Aberdeen	£ 1,868	£1,092
Caledonian	11,794	9,283
North British	4,229	4,274
Edinburgh and Glasgow	4,817	4,939
Scottish Central	2,417	1,784
Glasgow and South Western	4,534	3,512
Dundee and Perth	724	514
Total	£30,383	£25,668

IRELAND.—The Irish returns are:—

	1855.	1854.
Belfast and Ballymena	£ 765	£ 716
Belfast and County Down	218	197
Cork and Brandon	193	178
Great Southern and Western	5,512	4,771
Dublin and Belfast Junction	891	746
Londonderry and Enniskillen	235	194
Londonderry and Coleraine	235	194
Waterford and Kilkenny	199	157
Total	£8,578	£7,325

The Traffic Returns of Railways in the United Kingdom for the week ending January 14, amounted to £21,993, and for the corresponding week of 1854 to £21,265, showing an increase of £728. The gross receipts of the eight railways having their termini in the metropolis amounted for the week ending as above to £140,843, and for the corresponding week of last year to £123,593, showing an increase of £17,250.

The increase on the Eastern Counties Railway amounted to £4316; on the Great Northern to £4117; on the Great Western to £1474; on the London and North-Western to £2077; on the London, Brighton, and South-Coast to £1919; on the London and Blackwall to £88; on the London and South-Western to £1577; and on the South-Eastern to £1377: total, £17,250.

The receipts on the other lines in the United Kingdom amounted to £180,550, and for the corresponding period of 1854 to £148,032, showing an increase of £32,518. In the receipts of those lines, which, added to the increase on the metropolitan lines, makes the total increase £49,768, as compared with the corresponding week of 1854.

GOLD FIELDS OF THE PEEL RIVER LAND AND MINERAL COMPANY.

With respect to the mineral value of the property, the directors announce that, from the report of Mr. Odenheimer:—"It appears clear that the two great features of the precious metal, and its minute subdivision in quartz vein and in alluvial deposits, coupled with the exorbitant price and scarcity of labour, are the main causes which make the working of the examined gold fields unprofitable for the present. It is true that there still remains a tract of land to be surveyed, where, as Mr. Odenheimer expresses himself, he hopes he may be more successful, and that he has also to survey and render available for mining purposes the 640 acres of land leased to the Cordillera Company, which, in virtue of an agreement made in the colony, and subsequently ratified in this country, were to be held by that company, up to the 18th of Sep., 1854, and upon which they have realised in four months 344 ozs. of gold. Still, so far as the actual survey has proceeded, your directors feel themselves bound to confess that they have been greatly disappointed in the expectations which they had entertained of the value of the gold fields; and that this disappointment, in which Mr. Odenheimer himself so largely shares, is felt by them, not only as managers of the company, but as proprietors deeply interested in the success of the undertaking."

GOLD IN SWITZERLAND.—A Swiss journal announces that gold in rather considerable quantity has recently been discovered near the village of Contamines, between Saint Gervais-les-Bains and the foot of the Mountain du Bonhomme.

CALIFORNIA.—The *Star of the West* arrived at New York on the 2d, with advices from California, and \$625,885 on freight. Although there was rain, the mining news was cheerful. A nugget of gold valued at \$2000, and weighing 17 lbs., had been found at Sonora. Rich gold placers some 30 miles in extent had been discovered on the west fork of the Carrow River. Railways from Los Angeles and San Diego to Colorado were contemplated.

SOUTH AUSTRALIA.—Papers from Adelaide have been brought by the

LONDON AND WESTMINSTER BANK.

The annual general meeting of proprietors was held in the bank, in Lothbury, on Wednesday, Mr. J. L. RICHARDS, M.P., in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last, which were unanimously confirmed. The following report of the directors was next read:—

The directors have the pleasure to report that, after making provision for all bad and doubtful debts, paying the income tax, setting apart 2000*l.* towards the new buildings in Lothbury and Bloomsbury, and presenting a gratuity of 10 per cent. on their salaries to all the officers of the establishment, the net profits of the bank for the last half-year amount to 13,318*l.* 10*s.*, which, added to 13,000*l.* 10*s.* 6*d.* unappropriated from the profits of the preceding half-year, make a total of 26,318*l.* 10*s.* 6*d.* Out of this sum the directors have allowed interest on the rest or surplus fund at the rate of 5 per cent., and they now declare a dividend of 5 per cent. upon the paid-up capital. After these payments are made, there is a balance of 26,318*l.* 10*s.* 6*d.*, which has been transferred to the rest or surplus fund. The directors who go out by rotation are John Garratt Catley, Esq., James Denis De Vitre, Esq., and George Hanson, Esq., all of whom being eligible, offer themselves for re-election.

London and Westminster Bank, December 30, 1854.

Dr.—To proprietors for paid-up capital	£1,000,000 0 0
Amount due by the bank on deposits, circular notes, &c.	7,177,944 19 1
Rest or surplus fund	125,307 1 6
Balance of profit and loss account	13,900 19 5
Net profits of the past half-year	73,318 10 6
Total	£8,387,171 10 9
Ca.—Government Stock, Exchequer Bills, and India Bonds	£1,431,074 18 1
Other securities, including bills discounted, loans to customers, &c.	6,346,387 4 4
Cash in hand	604,309 13 4
Total	£8,387,171 10 9
PROFIT AND LOSS	
Dr.—Total expenditure of the six establishments, including rent, taxes, salaries, stationery, &c., with a gratuity of 10 per cent. on their salaries to the officers of the establishment	£ 23,086 4 2
Amount set apart towards the new buildings in Lothbury and Bloomsbury	2,000 0 0
Payment of the dividend now declared, at the rate of 5 per cent. per annum, for the last half-year, on the paid-up capital of 1,000,000 <i>l.</i>	50,000 0 0
Bonus of 5 per cent. on the capital	50,000 0 0
Rest or surplus fund:—	
Amount on Jan. 1, 1854	£125,307 1 6
Interest on ditto, at 5 per cent.	6,265 7 0
Balance of profit and loss account	2,934 2 5
Total	£241,553 15 1
Ca.—Rest or surplus fund	£241,553 15 1
Balance of profit and loss account, on the 30th June, 1854	13,900 19 5
Gross profits of the last half-year, after paying the income tax, and making provision for all bad and doubtful debts	102,344 14 2
Total	£241,553 15 1

The CHAIRMAN said it now became his duty to move the usual resolution, and however inadequate he might be from ability or experience to perform the business that had been assigned to him, he had the great advantage of seeing the same faces before him that were here upon the last occasion, and it would, therefore, be unnecessary for him to make any observations on the subjects then under discussion. It was then clearly understood—indeed, an amicable arrangement was come to—that no addition to the rest or surplus fund, above 130,000*l.* should be made, without notice being given in sufficient time for the proprietors to express their dissent or dissent from it. The directors, with every deference to the opinion of the proprietors, had not thought it necessary to increase it to the maximum, but had merely applied the odd sum of money, and the interest of the rest itself, which left it at 125,307*l.* 1*s.* 6*d.* He thought, up to the present time, proprietors might congratulate themselves that all banking establishments were in their own way, which he attributed to the vast imports from Australia and California of the commodity they dealt in. In 1850 the amount deposited was 3,959,000*l.* In 1851 upwards of 7,000,000*l.* had been deposited, and it was 40 new accounts were opened by depositors. The profits round numbers in 1850 was 67,000*l.*; in 1851, 84,000*l.*; in 1852, 55,000*l.*; in 1853, 116,000*l.*; and in 1854, 149,000*l.* He thought he might congratulate them upon this state of things, and perhaps be ought to finish here, but as he did not expect any opposition upon the present occasion, he would add a few observations. If the present war continued, banking establishments would be less exempt from any commercial calamity, as all must feel it. He did not wish to make any gloomy prophecy, but many people had a notion that the adversity of merchants was properly to bankers. The directors knew the reverse to be the fact. With commercial prosperity banks were prosperous, and when commerce was in adversity banks were in adversity. The object was not to make large profits, but to turn over the money several times. He hoped they would continue upon the same solid foundation, and upon their part they would exercise double caution and vigilance, under the circumstances of the times, and hoped when they next met to have as good an account to give to them. (Cheers.) He should conclude by proposing that the report be received, adopted, and printed, for circulation.

Mr. TITZ, M.P., in seconding the resolution, stated he received it with unqualified satisfaction. At former meetings he had the ill fortune to oppose the views of the directors. He (Mr. Titz) found to-day that the directors instead of increasing the rest had actually diminished it. In this concession to the views of the proprietors the directors had acted most honourably. The satisfactory position of the bank might be illustrated by the fact that the amount deposited with it during the last year had increased by nearly 1,000,000*l.* The proprietors ought not, as the chairman cautioned them, to reckon upon the same profits next year, nor blame the directors if they did not get it. He did not wish to see the price of the shares run up by unfounded expectations. He wished to ask two questions. It was well known that "the old lady" on the other side of the street had made some heavy losses, by the failure of some American houses, and it had been reported that this bank had suffered, although he did not believe it, and merely wished the assurance from them whether they had been affected in any amount? The next question was, whether they received simple deposits, as at other banks.

The CHAIRMAN said, in answer to the questions by the hon. proprietor, he was happy to inform them they had experienced no loss whatever from the failure of the American houses, either directly or indirectly. With regard to the second question, they received deposits precisely the same as at similar establishments.

The report was then unanimously adopted.

The CHAIRMAN said the next business was the election of directors. Messrs. J. G. Catley, J. D. de Vitre, and G. Hanson, go out by rotation, but being eligible, offer themselves for re-election.—They were unanimously re-elected.

Mr. P. D. HADLOW, in proposing a vote of thanks to the directors, said it was through their prudence and vigilance the proprietors were placed in such a satisfactory position.—The resolution was seconded and carried unanimously, amidst much applause.

The CHAIRMAN, in turning thanks, said the good feeling and unanimity they had experienced this day would give them fresh energy to work for their interest, and on their behalf. (Cheers.)

Mr. TITZ then proposed a vote of thanks to the manager and officers, and that they have 10 per cent. allowed them, in addition to their salaries.

A PROPRIETOR, in seconding the resolution, said they owed a deep debt of gratitude to Mr. Gilbert, and, indeed, to the managers generally.—The resolution being carried, Mr. GILBERT, on behalf of his colleagues and himself, returned thanks.

A PROPRIETOR suggested that the managers and clerks of the establishment should have their income tax paid out of the profits of the bank.

The CHAIRMAN said the question of allowing the income tax involved some difficult points, and the giving them 10 per cent. was considered far preferable. No one could tell what the income tax would be next year.

A PROPRIETOR said he had been over the Holborn branch, which was a most elegant and convenient building. He wished to know the cost of it?

The CHAIRMAN replied about 10,000*l.*, which included the purchase of freehold (4000*l.*), and every expense.

A special vote of thanks to the chairman, which was duly acknowledged, terminated the proceedings.

ST. KATHARINE DOCK COMPANY.

The half-yearly general meeting of the proprietors was held at the Dock House, Tower-hill, on Tuesday, Mr. JOHN WHITE CATLEY, in the chair.

The notice convening the meeting having been read, the submitted statement of accounts, and the directors' report, were submitted and passed:—

In conformity with the public notice convening the present meeting, the accounts of receipts and disbursements of the company for the year ended the 31st December, 1854, have been open for the inspection of proprietors since the 2d inst., and are now laid on the table for further reference if required.

The following are the results of the business of the past year:—

Gross earnings	£300,085 12 1
Expenditure, including interest	195,902 10 10
Net earnings	£104,183 1 3

The balance brought forward from the preceding year, after providing for the dividend declared in January last, was 33,694*l.* 13*s.*, which, added to the net earnings of the past year, and deducting the amount of the dividend declared in July last, shows a present available balance of 119,081*l.* 16*s.* 3*d.* Out of this amount the directors recommend that a dividend, at the rate of 3 per cent. on the capital stock of the company, be declared for the half-year ended the 31st Dec., 1854; should the proprietors concur in this recommendation, the amount of dividend payable will be 35,725*l.* 16*s.* 3*d.*, leaving a balance of 83,355*l.* 16*s.* 3*d.* to be carried forward to the present year.

The hydraulic machinery, reported to the meeting in July last as in an advanced state, is now almost completed; for some time past a considerable portion of it has been in operation, and it is found fully to realise the expectations entertained of the advantages which it would afford, both as to the economy of manual labour, and increased expedition in the landing and housing of goods. The additional floor to the Cutler-street warehouses has been vigorously proceeded with during the autumn, and is now about half completed; the directors have, however, considered it prudent, with a view to the stability of the works, and the security of the goods in warehouse, to suspend further operations during the winter months, and intend resuming the same early in the spring. The relaxation which has taken place during the last few years in the fiscal regulations of the port, by which nearly all goods are now allowed to be warehoused at the legal quays and sunderland wharves, has materially increased the inconvenience and loss sustained by the dock companies from the provision in their Acts of Parliament, by which they are debarred from making any charge on lighters entering the docks for the purpose of removing goods from ships lying thereon, or on the goods so removed.

The directors, therefore, on mature consideration of the subject, and after conference thereon with the directors of the other dock companies, deemed it expedient to take the necessary preliminary steps for an application to Parliament for a repeal of the restrictive clause referred to, which, from the altered state of affairs, operates in a manner which could not have been contemplated when the enactment was framed; and they have availed themselves of this opportunity to introduce into the same bill clauses, the object of which is to afford some additional facilities in

preparing the annual accounts for inspection by the proprietors, and to assimilate the mode of transferring the stock of this company to that of the other analogous establishments in the port. The following is a comparative statement of the quantities of goods landed and in warehouse in these docks, and also of the shipping and tonnage that have entered the same, during the years 1852, 1853, and 1854, respectively:—

GOODS.		1852.	1853.	1854.
Landed	Tons	122,050	144,388	137,549
Goods in warehouse on the 31st Dec.	Tons	73,256	82,152	79,440
SHIPPING.		1852.	1853.	1854.
Ships with cargoes	Tons	165,403	727	181,567
Entered light to load	Tons	41,783	241	33,718
Total	Tons	207,186	968	215,285

PORT OF LONDON GENERAL RETURN.

Number of ships, and their aggregate register tonnage, that entered the Port of London, with cargoes from foreign ports, during the years ended the 31st of January, 1855, 1854, 1853, distinguishing the British from the Foreign:—

1855.			1854.			1853.		
	Ships.	Tons.		Ships.	Tons.		Ships.	Tons.
British	5967	1,379,894	6225	1,515,636	6991	1,629,829		
Foreign	3915	752,541	5411	1,014,852	4717	968,455		
Total	9902	2,132,945	11639	2,550,488	10908	2,590,774		

The CHAIRMAN went minutely into the various details of the report, and, in accordance with the recommendation therein contained, proposed that a dividend of 3 per cent. for the half-year, free of income tax, be now declared on the capital stock of the company, payable on and after the 23d inst.

Mr. SMITH said that the chairman, in speaking of the merits of the report, had made use of an expression which had rather puzzled him—"It would be the height of impropriety to declare a dividend of more than 2 per cent.," for he was of opinion that it would not have been improper to declare a dividend of 3½ per cent. for the half-year, as, after payment thereof, there would be a rest of 70,000*l.* He thought their stock was unduly depressed, for the London Dock shares were at 105*l.*, whilst theirs were at 90*l.*, although their earnings, in comparison with their expenditure, was larger than that of the London Dock Company, and he believed for the sole reason that, from the great prudence of the directors, they were given smaller dividends. He, therefore, moved as an amendment, that a dividend of 3½ per cent. for the half-year be declared.

The CHAIRMAN stated that, although he had perhaps expressed himself rather strongly, he could assure them that they would have recommended a larger dividend, if they had considered they could have done so with due regard to the interests of the company.

After some discussion, in which the chairman gave ample reasons for not declaring a larger dividend, Mr. Smith expressed himself perfectly satisfied, and withdrew his amendment; and on the original motion being put to the meeting, it was carried with but two dissentients.

Mr. SMITH then moved, That the thanks of the meeting are eminently due, and are hereby tendered, to the chairman, and other directors, for their valuable services and unwearied attention to the interests of the company.—This resolution, having been seconded, was carried unanimously.

The CHAIRMAN acknowledged the compliment on behalf of himself and brother directors, and the meeting separated.

GOLD MINING SPECULATIONS.—CWMHEISIAN MINES.

COURT OF EXCHEQUER, JAN. 18.

HALL V. BRUNTON AND SIR C. FITZPATRICK, BART.—This was an action to recover the sum of 85*l.*, for services rendered under the circumstances below detailed.

Mr. W. H. Watson and Mr. J. Browne conducted the case for the plaintiff, and Mr. Sleigh appeared for the defendant, Fitzpatrick. The other defendant has become an insolvent since the action was commenced, and consequently did not appear.

It appeared that the plaintiff is an engineer in London, that Brunton was what was called a mineral agent, and that Sir C. Fitzpatrick is a baronet, residing at Hammer-smith. In the latter part of the year 1853 it was announced that the Cwmheisian Mine, near Dolgelly, in Wales, had been discovered to be rich not only in lead lodes, but that there was also a considerable amount of gold in the mine. This report having reached the ears of the two defendants, as well as those of a mineral agent of the name of Readwin, of No. 4, Winchester-buildings, the parties entered into some arrangement, the precise nature of which did not appear upon the present occasion; and eventually they became lessees of the mine for a limited period—viz., six months—at a rental of 1000*l.*, which was paid by Readwin, with an option given to them, that at the termination of the six months they had the power of purchasing the lease for the sum of 10,000*l.* During these negotiations, an American, of the name of Berdan, came over to England, and advertised a discovery which he had patented for crushing minerals so as to extract gold from them, in however small particles it might chance to be present. Attracted by this announcement, the defendants, together with Readwin, went up to some of the ore from their mines to the Windsor Iron Works, in the City-road, where Berdan had erected his machine. At this period the plaintiff was acting as Berdan's manager. The ore was in due course submitted to the operation of crushing, and the result proved to be highly satisfactory; whereupon an agreement was entered into with the plaintiff for the purchase of four machines.

The trio then drew up a certificate, to the effect that the machine had worked admirably, and that the ore from the mines in question had yielded 2 os. 12 gr. of pure gold. From this period the plaintiff was engaged by the defendants at a salary of 1*l.* per day, as the superintendent of this gold-crushing machine, which, with three others, they had conveyed down to Wales, where they were erected. The anticipations of those adventurers were for some time satisfactorily realised, but, unhappily, as time went on, they were disappointed, and it turned out that there was a failure in the production of gold. By the course of the cross-examination, but the fact was not established, it would appear that this failure had given rise to a suspicion that in the experiments, and in many of the subsequent workings of the machine, the plaintiff must, by some means or other, have infused some gold during the process of crushing. In the meantime, the mines were divided into 60,000 shares, which number was equally divided between the two defendants and Readwin, those gentlemen, in truth, being at that time the sole proprietors of the mines, but not possessing the capital to carry out the scheme, but merely holding the shares, and the plaintiff, on the other hand, having advanced the sum of 4000*l.* Upon the discovery that the ore no longer yielded gold the affair broke up, whereupon the plaintiff, being naturally anxious to procure the payment of his salary, as well as to be reimbursed for certain expenses he had been compelled to incur, sued Readwin; but that gentleman became a bankrupt, and consequently, he was unable to recover anything from him. The present action was thereupon commenced against the defendants, as joint adventurers. The defence was, that Readwin was the real responsible person, inasmuch as the credit had been given to him; had paid plaintiff 66*l.* on account, and to no one else. The plaintiff, on the other hand, swore that Sir Charles Fitzpatrick had admitted his own liability, and had promised that the demand should be settled as soon as he had obtained the necessary funds. Readwin, however, who was examined only up to a certain point, affirmed that the plaintiff had repeatedly asserted that he held him (Readwin) responsible, and no one else, and Sir Charles, although sitting in Court, was not put into the box to contradict what had been sworn to by the plaintiff.

Mr. BARON PLATT said, on looking through the papers he saw the names of Sir Charles Fitzpatrick and Mr. Readwin, F.R.S. What did these letters mean, which were attached to Readwin's name, and to no one else? The meaning, "Fellow of the Geological Society?" "Mr. READWIN," in leaving the case to the jury, commented in strong terms upon the facts of Sir Charles Fitzpatrick, who was in Court, not having been put into the box; and then of a certificated bankrupt being brought forward to take a debt upon his shoulders, from which it was known that by his bankruptcy he had been released. The whole matter was one of much suspicion. There had been 60,000 shares divided between three persons, and no doubt existed in his mind but that they were to have been thrown upon the market, in order that the anticipated and promised gold should be drawn from the public—Her Majesty's subjects.

The jury returned a verdict for the plaintiff—Damages, 85*l.*

FORFEITURE OF SHARES.—STANNARIES' COURT.—(From a Correspondent.)—Referring to remarks in the case of Hart v. Clark, last week, it must not be supposed that the rule of the Stannaries' Court is that shares of defaulting parties may be sold, and the surplus, if any, after discharging liabilities, accounted for with the original holder, or paid up to the party, or to his heirs. Paid-up adventurers must not take the law into their own hands, and may neither forfeit shares for their own benefit, nor sell them at all, unless specially agreed. The Vice-Wardens only have the power under the 6th and 7th William, cap. 106, sec. 18, to order the sale of shares held in a mine by any person against whom a decree or order may have been made for payment of money due in respect of the working management of, or the providing goods for, such mine. In order to obtain such decrees, proceedings must be instituted in the equity side of the Stannaries' Court by petition, in the nature of a bill in Chancery, and the Court of Chancery has jurisdiction in all matters relating to mining partnership in that county, much the same jurisdiction as the Court of Chancery and the superior courts of common law do in all other partnerships. The importance of having proper and well-defined rules on the formation of a company will thus be recognised, for if the power to forfeit be specially agreed to, no doubt it will be valid; and it should be borne in mind that after the company has been formed it would be too late. After a person has taken a share in a mine, without any special provisions, it would be entirely optional with him to accept, or dissent from, any rules proposed for the government of the partnership. The majority could not make rules or by-laws binding on the minority, and the holder of a single share out of a thousand could not be bound by any code of rules adopted by a resolution of the holders of the other nine hundred and ninety-nine shares.—[In our observations, we gave the language of the Court of Appeal, in stating the practice of the Stannaries' Court; but the very fact of the necessity of seeking the intervention of that Court ought to have satisfied our correspondent that preliminary proceedings were necessary before the shares could be sold. Indeed, a safe rule is that should be to take place under the orders of the Stannaries' Court, and the inference was obvious, it was of that course of proceeding the Lords Justices expressed their approval.]

GAS.—Mr. T. I. Dimdale, of Hadley, has patented the method of operating upon carbonaceous or bituminous substances by the introduction into the retort during the process of distillation of jets of superheated steam, for the purpose of decomposing the same, and causing its elements to combine in a nascent state with the gases evolved from the carbonaceous or bituminous substances contained in such retort. Also mixing with solid carbonaceous matters, fatty, oleaginous, or resinous substances, previous to the same being placed in the retorts for the production of gas.

NEW LOCOMOTIVE POWER.—In this neighbourhood an important experiment is about to be made in relation to the propulsion of carriages on surface and underground railways by atmospheric power. The application of this power to the object proposed is effected through the means of well-known machinery, differing little in construction from the ordinary steam-engine cylinder, and the whole arrangement has no other relation to bygone experiments than that arising from the power employed.

Leaking, however, a principal source of failure in other atmospheric systems, is, by the present arrangement, effectually avoided. This important feature, and the extreme simplicity of the principle, establish this plan as being quite new, and entitle it to consideration, unobscured by all former unsatisfactory attempts to apply the same source of power. The peculiar applicability of this system to underground work is proved by the absence of smoke and steam, and particularly by its being a certain and economic means of ventilation—an undertaking at present a source of so much anxiety and expense to mineral proprietors.—*Standard Herald.*

WEEKLY LIST OF NEW PATENTS.

WEEKLY LIST OF PATENTS SEALED.

J. Walker: Bricks, tiles, pipes, &c.—C. E. White and F. Robinson: Railway signal.—F. G. Thomas and W. E. Tilly: Plating metals with tin, nickel, or alumina.—G. Carter and H. C. Symons: Boilers and furnaces.—T. Boyis: Reflectors for artificial light.—J. L. Dunn: Useful products from waste sulphates and nitrates.—E. Mayor: Centrifugal pump.—R. A. North: Railway vehicles and carriages.—J. H. Johnson: Motive-power.—W. W. Lewis: Charcoal.—G. Crane and I. J. Crane: Coating for ships' bottoms.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

J. Ashworth, Tipton: Apparatus to be employed in the construction of the permanent way of railways.

W. B. Johnson: Steam-engines.

F. and W. Whitehead, Crayford: Safety lamps.

N. Callan, Maynooth College: Means by which iron of every kind may be protected against the action of the weather and of various corroding substances, so that iron thus protected will answer for roofing, for cisterns, baths, gutters, window frames, telegraphic wires, for marine and various other purposes, and by which brass and copper may be similarly protected.

S. Frankham, Greenland-place, Judd-street: Construction of furnaces.

W. White, York-villa, Kensington-park, Baywater: Decorating the contents of cesspools, privies, and also like matters in other places; also manufacture of manures.

W. H. Smith, M.D., Philadelphia, H. Bessemer, Buxton-house, St. Pancras, and R. Longdon, Hornsey-lane: Manufacture and treatment of slag and vitreous substances, and the combination of other substances therewith.

J. Morgan, Kidderminster: Machinery or apparatus for cutting metals.

J. Bird, Chance's Fire-brick Works, near Dudley: Reverberatory furnaces.

W. Beardmore, Stowage, Deptford: Bearings of the axles of railway carriages and locomotive engines.

G. T. Bousfield, Sussex-place, Loughborough-road, Brixton: Manufacture of wrought-iron carriage and other wheels and pulleys.

W. S. Garfield and J. Glascock, Bho Foundry: Means of consuming smoke in furnaces.

F. Morton, Liverpool: Improvements applicable to girders or rafters to be used in the construction of roofs, bridges, buildings, and other erections.

C. R. Read, Moorgate-street: Slide valves of steam-engines.

L. N. Langlois, Paris: Construction of steam-boats.

C. D. Cranston, Elgin-coupling and uncoupling railway carriages and rolling stock.

W. Hanna, Heston Farm Houses, Durham: Propelling vessels.

RAILWAYS.—Mr. Henry, C.E., of Metz, has patented some improvements in constructing railways. The inventor describes a great variety of forms of rails applicable to the permanent-way of common railways, contrived so as to dispense with the ordinary cast-iron chairs, wedges, and cross sleepers; and a system of railroad for common vehicles, consisting of flat iron rails, fixed at a suitable distance or gauge.

RAILWAY BREAKS.—Mr. Wm. Stableford, of the Broomgrove Railway Carriage Works, Worcester, foreman to Messrs. Johnson and Kinder, railway contractors, has patented some improvements in railway breaks. The inventor claims—1. The construction of a break caused to act upon wheels by means of wedges.

—2. A construction of breaks by which the weight of the carriage is caused to act upon them.

—3. The construction of a double-acting break, which is caused to bite upon both sides of the wheel.

TIN AND GOLD.—Mr. A. P. Price, of Margate, has patented some improvements in the treatment of certain alloys of tin. The invention mainly consists in subjecting certain alloys of tin and gold—such as that known as Australian auriferous tin—to the action of hydrochloric acid, so as to dissolve the whole or the greater proportion of the tin, the solution of chloride of tin being, by evaporation and crystallisation, rendered suitable to be employed in the arts or otherwise.

Mr. Price has also secured a patent for the purification of tin, and in obtaining useful products arising from such purification. These improvements consist in subjecting impure tin to the action of hydrochloric acid, and in decomposing the solution of chloride of tin obtained by means of ammoniacal gas liquor, or other ammoniacal liquor, or with the volatile alkaline ammoniacal products obtained therefrom, or with ammonia or carbonate of ammonia, so as to precipitate the tin existing in solution, and to obtain a valuable product, muriate of ammonia.

ACREHEDGEE FOUNDRY, STROUD.

TO ENGINEERS, CLOTHIERS, AND OTHERS.

MESSRS. T. AND W. DAVIS WILL SELL, BY AUCTION, without reserve, on Tuesday, the 30th of January, 1855, in consequence of removal to Duddridge Foundry, the whole of the FITTINGS, PLANT, MACHINERY, and TOOLS, belonging to Mr. John Huchell, engineer and ironfounder, comprising

a 24-horse CONDENSING ENGINE; large venter saw, 14 ft. diameter, with travelling bed, gearing, &c., complete, able to cut 12 in. with lapidary for grinding stone; new 40 in. 8 top scribbler; 40 in. grinders; 4-horse high-pressure engines and boilers; large boiler, 20 ft. long, 3 ft. diameter; self-acting screw-cutting slide rest; large lathe, 20 ft. long, 8 ft. diameter; drilling and planing machines, by Mather, beds respectively 8 ft. and 6 ft. long; boring apparatus for cylinders; small smithy; several lathes, by Lewis and others; boring apparatus for cylinders; small circular saw and bench; wheel-cutting engine; steam engine, 10 ft. diameter, 10 ft. long; quantity of mahogany and oak plank; 1 grey pony; 2 bay mares; dog cart, phaeton, and harness; mahogany counting-house desk; and sundries.

The sale to commence at Twelve o'clock precisely.

EAST CROWDALE MINE.—TO BE SOLD, BY PRIVATE CONTRACT, a 56 in. PUMPING ENGINE, with boiler 10 tons, and tube for warmer 30 ft. long; water-wheel, almost new, 30 ft. by 8 ft. breast, cast-iron rings and sockets, with wrought-iron axle, with crusher and drawing machine, complete.

11 ft. 13 in. plunger-pole, with stuff-box and gland.

10 ft. 12 in. plunger-pole, with stuff-box and gland.

14 in. H-piece. 14 in. doorpiece.

13 in. H-piece.

7 ft. 13 in. doorpiece.

7 ft. 13 in. doorpiece.

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